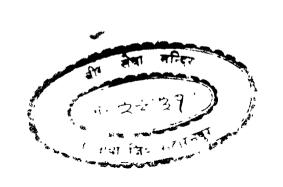
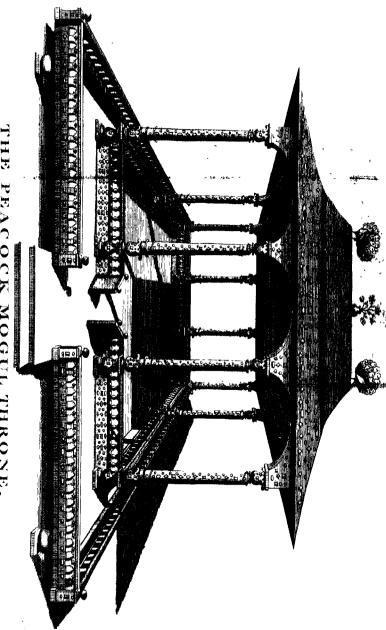
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INDIAN ANTIQUITIES:

OR.

DISSERTATIONS.

PPLATIVE TO

THE ANCIENT GEOGRAPHICAL DIVISIONS. THE PURE SYSTEM OF PRIMEVAL THEOLOGY. THE GRAND CODE OF CIVIL LAWS. THE ORIGINAL FORM OF GOVERNMENT. THE WIDELY-EXTENDED COMMERCE, AND THE VARIOUS AND PROFOUND LITERATURE.

OF HINDOSTAN:

COMPARED, THROUGHOUT, WITH THE RELIGION, LAWS, GOVERNMENT, and LITERATURE.

PERSIA, EGYPT, AND GREECE.

THE WHOLE

Intended as Introductory to, and Illustrative of.

THE HISTORY OF HINDOSTAN. UPON A COMPREHENSIVE SCALE.

VOL. VII. AND FINAL.

LONDON:

Printed, firethe Author, by H. L. Galabin, Ingram-Court, Finch irch Street,

M.DCCC.

C.G. BOOK STALL e, Shama Ch. De St. Calcutta.

ТО

THOMAS PLUMER, Esq.

AND

ROBERT DALLAS, Esq.

HIS MAJESTY'S COUNSEL.

LEARNED IN THE LAW.

GENTLEMEN.

I SHOULD be guilty of unpardonable ingratitude, were I to suffer the Indian Antiquities to close without paying the public tribute of respect, intended by this Dedication, to those kind friends who, at the very commencement of the undertaking, so decidedly stood forth to promote its success and befriend the author. In the dark moment to which I allude, when accumulated difficulties started up on every side to obstruct the public appearance

pearance of this work, your joint liberality, spontaneously exerted, smoothed the way and dispelled the gloom. The two first volumes, in consequence, shortly after appeared, and my mind could not fail of being impressed with the truest satisfaction, on finding that what you had thus generously patronized was honoured with a large portion of the public applause.

Through a feries of years not a little inauspicious to great literary efforts, and often with but very slender materials, from the mine of Indian science having been hitherto but very superficially explored, with health in not the most vigorous state, and with spirits consequently not always free from depression, I have perseveringly laboured to complete this, and the yet greater, work with which it is connected, till, at length, the vast outlines, which I had sketched for the conduct of both, are, as far as possible, filled up, and nothing remains but the grateful task of returning those fincere acknowledgements, which are so justly due from me to all my generous patrons, both public and private. Among these, Gentlemen, besides yourselves, I could,

with equal pride and pleasure, enumerate some of the most illustrious characters who preside on the bench and practise at the bar of British jurisprudence, who, convinced of the intimate connection sublisting between the national code of equity and that sublimer code, on which, indeed, it is, in a great degree, founded, and the leading principles of which are throughout these pages humbly attempted to be defended and illustrated, have uniformly befriended this growing work in every stage of its progress towards maturity, and have rejoiced to behold obstacles surmounted and difficulties subdued. Nor has this generous patronage been folely confined to the circle of those who preside and practise in the courts of common law; fince, from fome who preside in those of the civil law of this country, I have also received such flattering marks of attention, as I must remember with fervent gratitude to the latest hour of my life.

Gentlemen, forgive me, if, on this occasion, I cannot avoid indulging a small portion of, I trust, a laudable vanity: for, to be honoured, on the one hand, with the pa-

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tronage of men, by station so highly elevated, and themselves such accomplished proficients in literature, as the present Lord High Chancellor, the Master of the Rolls, Lord Eldon, and Sir Giles Rook; and, on the other, with the decided applause of characters so deservedly estimated by their countrymen, as Sir William Wynne, Sir William Scott, and Sir John Nicholl, falls to the envied lot of but very few writers of the age. I trust these distinguished personages will not be offended at my thus publicly stating to you, and to the public, my peculiar obligations to them, nor refuse to accept of my warmest acknowledgements for their continued kindness.

Among the numerous barristers, distinguished by talents and by science, whom I am also proud to rank among my friends and subscribers, I am bound by gratitude at least to mention one, Mr. MACKINTOSH, whose obliging notice of my efforts, in the very elegant prospectus to his interesting lectures, demands, and has, my warmest thanks. At no period of our history, I believe, was the English bar filled by men of more transcendent abilities, of purer principles,

principles, or more independent minds. The great body of artists, also, in this kingdom, who do not dislike a little bigh colouring in style, I have the greatest reason to think decidedly friendly to my work; though many of them have not ceased to lament that my plates are by no means adequate to the importance of the subjects discussed. On some future occasion, possibly, with their kind assistance, that error may be rectified.

The conviction, Gentlemen, of your particular and practical knowledge of Indian Jurisprudence, evinced, on a memorable occasion, in the highest court of judicature known in this country, excites in my mind no small degree of anxious apprehension, while I inscribe to you a volume containing an express treatise on the ancient government and legal institutions of that mighty empire. Little conversant, from different habits and pursuits of life, in legal refearches, I would willingly have declined altogether engaging in the subject; but a differtation on Indian jurisprudence forms a part of my original propofals, published long before Sir William Jones favoured the learned world

world with a translation of Menu's Institutes, which are now in the hands of most professional men. Though that circumstance has enabled me greatly to curtail my disquisitions on that curious head of Indian literature, yet it by no means releases me from the obligation I am under to the general class of my readers, who may not be possessed of the work in question. The concife observations which I have ventured to offer on the legislature of India and that fingular code, composed of such heterogeneous ingredients, that jargon (for fo I must call it) of despotism to men and benevolence to brutes, of sense and absurdity, of the fublime and the puerile, are the refult of confiderable attention to the fubject, founded partly on what I have been able to collect from ancient classical writers, and partly from the few genuine Hindoo documents as yet in our possession. They might eafily have been made longer, and are, in fact, themselves only an abridgement of a more extended essay; but, as I have in that Differtation apologetically obferved, the work itself has been fince reprinted and widely circulated in Europe.

is entered into in sufficient detail to gratify the curiosity of the general reader, and the legal student will probably not rest content without consulting the original. My intention, in giving a regular analysis of the code, was, by leaving out what appeared to be its interpolated absurdities, to present it to the reader in a more connected point of view, and better worthy of the wishdom of the sublime legislator to whom it is attributed.

The legal Differtation, though the last in order of those that occupy the pages of this final volume, I have introduced first and more particularly to your notice, Gentlemen, because it is the one in which you will probably find yourselves most interested. It contains two others, intimately connected with Indian commerce and literature, to which I beg permission to make these dedicatory pages somewhat introductory.

When the Arabian chiefs, in the feventh century of the Christian æra, poured their myriads into the plains of Hindostan, they found there such superabundant wealth, the tribute of all nations for innumerable ages, as occasioned the writers of that country

to invent the romantic fiction that, among other rarities peculiar to India, a tree was discovered there of pure gold,* and of enormous fize, springing naturally out of the foil, thus realizing Milton's fable of the vegetable gold that grew in the delightful paradife of his fancy. According to writers, however, hereafter referred to, of somewhat better authenticity than those fablers, nothing could equal, in the ancient periods that preceded their irruption, the astonishing magnificence displayed in the pagodas. The lofty roofs and columns of those stupendous edifices are reported to have been entirely covered with that beautiful metal; the high-raifed altars blazed with a profusion of gems; the breasts and vestures of their monstrous idols were covered with strings of the loveliest pearl, while their eyes sparkled with the borrowed lustre of emeralds and rubies. I thought it could not fail of being peculiarly interesting to that very large and respectable portion of my readers who are commercially connected with India, to trace to

^{*} See Orme's Hindostan, vol i. p. 9.

their fource, in the vast, but now probably exhausted, mines of Africa and Asia, the streams of that amazing wealth, by way of appendix to the Dissertation on the ancient commerce of India in the fixth volume of these Antiquities. The picture, it must be owned, is extremely gaudy and magnificent, but I trust it is not overcharged.

The arts and sciences of India, which I have confidered under the general head of its literature, were carried, in periods of the most remote antiquity, to so high a point of excellence as opens to the European scholar an immense field for reflection. In this instance also I have endeavoured to do the ancient Indians strict justice without exaggeration; but, on fome points principally relating to their unparalleled advance in mechanical science, considerable difficulties arifing, and there being fuch a deficiency of written materials in Europe for proving the points contended for; to fubstantiate those points I have had recourse to the following plan of investigation and decifion, in which, if my author Sir William Jones was, as I have every reason to think, correct in his original posagitu.

fitions, I could scarcely fail of being also correct in my deductions.

By a train of forcible arguments, strengthened by an ingenious astronomical calculation, that equally zealous and judicious explorer into the genuine antiquities of Asia has fixed the period of the first promulgation of Menu's Institutes to that of the establishment of the first monarchies in Egypt and Asia, which could not have taken place many ages posterior to the deluge; and their first publication, as a code of written laws, to about the year 1280 before Christ. Now when we read in that code of the engraving and piercing of gems, and particularly of diamonds, an art only recently known in Europe, we know they must necessarily have had the use of those fine steel instruments without which that operation could not possibly have been performed, and confequently that they must have been very excellent metallurgifts as early after the deluge as can well be conceived. Again, when, in the same book, we read of a particular cast, or class, whose fole occupation it is to attend filkworms, we can ascertain, however disputed

in favour of the Chinese at a later date. the very early period when filk-weaving flourished in India. To the same decision we are irrelistibly led in respect to the art of making pottery and porcelain, which induced me to determine that the ancient Murrhins were not chrystal or agate, but a fine kind of porcelain, and I rejoice to hear that so good a judge of the subject as Dr. Vincent, whose book I have not yet seen, confirms the fact contended for. The portion of my book, in which that affertion stands, was printed off long prior to the appearance of his. A variety of fimilar proofs may be brought of their having been, in those ancient periods, good chemists, astronomers, architects, geometricians, and even anatomists, an affertion so often and strenuously denied; and, for these proofs, I refer the reader to the parts of the Differtation that relate to those facts.

Such, Gentlemen, is the species of entertainment which I have endeavoured gratefully to provide for yourselves and the indulgent public in the present volume of Indian Antiquities; and, while I take a final adieu of a subject that has engrossed some years of my life, most fervently do I hope that

that my humble essays may only be the forerunner of some grander effort more fully and essectually to display them, since my mind is eternally impressed with the conviction from which, indeed, I have uniformly acted, that every additional research into their early annals and history will ultimately tend (not to weaken and subvert, as the sceptic vainly presumes, but) to strengthen and support the Mosaic and Christian codes, and, consequently, the highest and best interests of MAN.

I have the honour to be,

GENTLEMEN,

with the truest respect,

your ever obliged and faithful servant,

THOMAS MAURICE.

British Museum, July 1, 1800.

HE frontispiece of this volume, exhibiting the famous peacock-throne of the Mogul emperors of India, the subjoined account of that throne by the Baron Tavernier, who saw it about the end of the last century, will probably prove acceptable to the reader. He speaks of one peacock only, but two appear in this print, which was drawn, at Delhi, by an European artist in the train of Nadir Shah, who, on the plunder of that city in 1739, broke it to pieces, and carried the jewels that composed it into Persia, whence they have been scattered through Asia and Europe.

"The Great Mogul has feven thrones, fome fet all over with diamonds; others with rubies, emeralds, and pearls. But the largest throne is erected in the hall of the

first court of the palace; it is, in form, like one of our field-beds, six seet long and sour broad. I counted about a hundred and eight pale rubies in collets about that throne, the least whereof weighed a hundred carats, but there are some that weigh two hundred. Emeralds I counted about a hundred and forty, that weighed some threescore, some thirty, carats.

"The under part of the canopy is entirely embroidered with pearls and diamonds, with a fringe of pearls round the edge. Upon the top of the canopy, which is made like an arch with four panes, stands a peacock, with his tail spread, confisting entirely of fapphires and other proper coloured stones: the body is of beaten gold, enchased with numerous jewels; and a great ruby adorns his breaft, to which hangs a pearl that weighs fifty carats. On each fide of the peacock stand two nosegays, as high as the bird, confisting of various forts of flowers, all of beaten gold enamelled. When the king feats himself upon the throne, there is a transparent jewel, with a diamond appendant of eighty or ninety carats weight, encompassed with rubies and emeralds, so fuspended

fuspended that it is always in his eye. The twelve pillars also, that uphold the canopy, are set round with rows of fair pearl and of an excellent water, that weigh from six to ten carats a piece. At the distance of four feet, upon each side of the throne, are placed two umbrellas, the handles of which are about eight feet high, covered with diamonds; the umbrellas themselves, being of crimson velvet, embroidered and fringed with pearl. This is the famous throne which Timur began and Shah Jehaun sinished, and is really reported to have cost a hundred and sixty millions and sive hundred thousand livres of our money."*

For an account of the curious mythological representation of the planet Sans, or Saturn, with his ring formed of ferpents, the reader will please to consult page 605 of this volume and the subsequent remarks.

The enumeration of the pages is continued from the fixth volume, which closed with 440. The reason is, that the first Differtation in this volume was originally intended to have come into the preceding one;

but,

^{*} Tavernier's Indian Travels, tom. iii. p. 331, edit. 1713.

but, on making up the book, it was found that the addition would have rendered that volume disproportionably large: it was, therefore, reserved for the present.

P. S. There having been of late a confiderable demand for the two volumes of Indian Antiquities (long out of print) which contain the Differtation on the Afiatic Trinities, to accommodate the public, the author has, at a very great expense, reprinted the whole of that Differtation in one volume, which, with all the plates illustrative of the doctrine, may be had at Mr. Gardiner's, Prince's Street, Cavendish-Square, price twelve shillings. The impression consists of only 250 copies, and it can on no account be again printed distinct from the larger work to which it properly belongs.

The Binder will place the print of the Mo-GUL THRONE opposite the title; and that of the PLANET SANI before the Dissertation on the Literature of the Indians.

Α

DISSERTATION

ON THE QUANTITY OF

BULLION AND COINED MONEY

IN THE ANCIENT WORLD;

COMPRISING A SHORT HISTORY OF THE GOLD AND SILVER MINES OF ASIA,

AND

A SURVEY OF THE IMMENSE TREASURES

POSSESSED BY THE

ANCIENT SOVEREIGNS OF INDIA.

A

DISSERTATION, &c.

SECTION I.

HAVILAH, the Land of Gold, - the ancient Mines of ARABIA and ETHIOPIA, - the Treasures in Bullion of the ancient EGYPTIAN Sovereigns, - the golden SOFALA, the Source of the Wealth of the Tyrians and Solo-MON, - the former, bowever, bad another abundant Source in the Mines of SPAIN, the PE-RU and Potosi of Antiquity. - A Description, from the Prophet EZEKIEL, of the Magnificence of ancient Tyre. - The Sources of the Wealth of the Assyrian or Babylonian Empire investigated, and that Wealth exemplified in the Ornaments of the Temple of Brius and the DEA SYRIA. - Brief Strictures on coined Money and the DARICS Struck at BA-BYLON. - The Empire of ASIA, and the Cur-

rent of Wealth which constantly followed it. transferred, by CYRUS, from BARYLON to SUSA. - The immense Wealth in Bullion and coined Money of the ancient Persians. - its principal Sources, its own Mines in CARMA-NIA, the Mines of LYDIA and THRACE, and the vast internal Commerce carried on with INDIA. - The Whole fell a Prey to ALEX-ANDER on bis Conquest of Persia, and to bis Gaptains after bis Decease. - The filver Mines of ATTICA, and the accumulated Treasures preserved in the GRECIAN Temples, considered. - Those Temples, the public Banks of GREECE, and the Priests the Bankers. — A Survey is now taken of the Wealth of ancient INDIA, - the great central Deposit, for many Centuries, of the Bullion both of the Eastern and Western World, - that Bullion principally melted down and formed into Statues of the -numerous superior and subordinate Deities Fof India, as well as to fabricate the splendid Utenfils of their Temples. - An Account of the Treasures of that Kind found in those Temples

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Temples by Sultan MAHMUD, of GAZNA, and other Invaders of HINDOSTAN. - The Author returns from HINDOSTAN to the Confideration of the Wealth obtained by ALEXANDER, and its Dispersion by bis Successors, the Ptolemies of EGYPT, the SELEUCIDÆ of SYRIA, and the MACEDONIAN Sovereigns. - The whole Wealth of ASIA *centred finally among the ROMANS. - A confiderable Part dispated by their Profligacy; a still more considerable Portim fell to the Lot of the Goths, Vandals. and other barbarous Nations who plundered Rome; but, by far the most considerable Portion was buried, during the Times of Tyranny and Turbulence, in that Earth from which it originally came.

of the ancient world in gold and filver bullion, we must turn our eyes to the countries in which mines were first discovered and wrought. Now the region, most early mentioned in history sacred and profane as producing gold, is HAVILAH, in the Pentateuch F f 4 of

of Moses, and the gold which it produced is faid to have been remarkable for its purity. Havilah, which the river Pison watered, is, by the best commentators, afferted to be Arabia; and, accordingly, we read both in Agatarchides and Strabo, that Arabia anciently abounded in gold in so extraordinary a manner, that its inhabitants would give double the weight of that valuable metal for iron, treble its weight for brass, and ten times its weight for filver.* We are informed by those authors, that, in digging the earth in the fouthern parts of Arabia, they found pieces of gold that needed not the refiner's fire fometimes as big as olive-stones, and, at others, as big as walnuts; and that, in particular, through the country of the Deliæ, ran a stream, in whose fands were intermixed pieces of gold of confiderable magnitude, while the fand at its mouth appeared as one shining folid mass entirely composed of it, and that the furniture and utenfils of their horses. their cups and vefiels, were made of it. On this account, as well as its producing such

^{*} Vide Agatarchides Cnid. apud Photium, p. 1370, et etiam Strabonis Geograph. lib. xvi. p. 583.

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quantities of myrrh, cassia, frankincense, and all the finest drugs and perfumes, that part of Arabia obtained the name of Felix.

Although a considerable portion of this relation may have truth for its basis, yet the greater part is probably exaggerated; for the immemorial trade of the Arabians to the coast of Africa was, doubtless, one source of their thus abounding in those precious metals, which are the chief object of traffic. Of their early engagement in commercial concerns, no stronger testimony need be brought than that which Scripture itself affords; for, it was to a caravan of Ishmaelitish (that is, Arabian) merchants, going down to Egypt with spices and balm, that the patriarch Joseph was fold. To Africa. therefore, and particularly to the Ethiopians, we must next direct our course, as a principal and unfailing fource of the riches of the ancient world; for, in truth, every province of that vast empire abounded in mines: gold was borne down by torrents from the mountains, and flowed in the streams of the valley; the Ethiopians anciently had fuch plenty of it, that, to shew their contempt for what excited the envy and admiration of the whole world world beside, they are said to have manacled their prisoners taken in war with golden setters.

There is a curious account given in Diodorus Siculus of the mode after which the Egyptians worked and refined the metal obtained from the mines in the Thebais; for the Lower Egypt, as we before observed, was entirely destitute of mines. They commenced the operation by pounding the ore, and reducing it to grains of the fize of millet. It was then reduced to powder under millstones of great weight. The gold-dust, thus finely ground, was spread, as in the process used in respect to the tin ore, detailed above, over a floor of boards, fomewhat inclined, and well washed with water, which ran off from the floping declivity, bearing with it the groffer terrestrial particles that had adhered to it. This washing was several times repeated; and the ore, after having been well rubbed between the hands of the workmen, and thoroughly cleaned by sponges from all remaining filth, was configned over to those whose business it was to smelt it. artists deposited the gold dust in earthen vases, mixing with it, in certain proportions, LEAD, salt,

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falt. TIN, and barley-meal; and these, being closely covered and luted, were placed for five days and nights in a strong refining-furnace. When that period was elapsed, and the metal cooled, they opened the veffels; and, examining the gold, found it perfectly pure, and very little diminished in quantity.* This process, of separating and refining the ore of gold, the ancients inform us, was immemorially practifed in Egypt, and, in reality, it does not materially differ from that used at the present day; lead, tin, and the labour of repeated fusion, being substituted by the ancients in the room of the more rapid and eafy process of the moderns, by means of mercury. In those early periods, however, when as yet both the necessities and the luxuries of life were fewer, gold was frequently found in a state that needed no refining. Without descending into the dark bosom of the mine, virgin gold was frequently to be met with near the furface, as it was discovered in Peru, and is now found in Achem.

[•] See Diod. Sic. p. 184; and Agatarchides apud Photium in loco citato.

Of the immense quantity of gold possessed by the Egyptians, as well as their elegant manufacture of it, in the very early ages to which we allude, abundant testimony may be brought from writers, both facred and profane, and to their combined evidence we shall constantly appeal, when possible, for the truth of our affertions throughout this Differtation. Diodorus, describing the grand mausoleum of Osymandyas, informs us, that the exact fum of the gold and filver dug from the mines of the Thebais, as inscribed on the walls of that temple, amounted to 3,000,000,000 of minæ, or ninety-fix millions of our money; and mentions, in farther proof of the magnificence of that monarch, the stupendous circle of wrought gold, 365 cubits in circumference, the number of the days of the reformed year of Egypt, which surrounded his tomb.* From a itill more authentic record, the Pentateuch of Moses, may be adduced, in evidence, the golden chain which Pharoah placed around the neck of Joseph; when he raifed him to the dignity of cup-bearer; the exceeding riches in gold and filver carried by

^{*} Dioderus Siculus, lib. i. p. 44.

Abraham out of Egypt; the multitude of gold and filver vafes, and other valuable trinkets, which the Israelites, though in a state of abject servitude, at their exodus, obtained of their wealthy neighbours; and the bracelets, the ear-rings, and the clasps of gold, which they afterwards voluntarily offered to Moses for the fabrication of those sumptuous works, for the golden crown, the table of shew-bread, and the rich chandelier of beaten gold, devoted to the holiest rites of their religion. The greatest mart, however, for this metal on the African coast, was the golden Sofala, which Mr. Bruce has incontestably proved to be the Ophir of Scriptures; and it was probably from those mines that David and Solomon obtained those immense treafures, which animated the former to project, and enabled the latter to complete, the stately Temple of Jerusalem with all the various golden ornaments used in its public worship. In one voyage only, the ships of Solomon are reported by Josephus to have brought home four hundred and fifty talents of gold; by which the writer meant the talent used at Tyre, most probably current at Jerusalem, and thought by Arbuthnot to be of the same value

value as that of Attica, amounting to between three and four millions sterling.* If these voyages to Ophir were frequently repeated, there can be but little of hyperbole in that expression which occurs in Scripture, of his making filver to be at Jerusalem as the stones of the street; because filver at that time bore a far inferior value to gold than it bears in these days; it being then in the proportion of fixteen to one; whereas, it is now only as twelve to one. Nor can we wonder at David's having left in his treasury a bundred thousand talents of gold, and a thousand thousand talents of filver. 1 Chronicles, xxii. though we cannot, in this instance, compute by the Eubæan talent, which in gold, according to the fame author, would amount to 547,500,000% and in filver to above 342,000,000% of our money; an enormous and incredible fum, which the treasury of no sovereign or nation on earth ever contained. Dr. Arbuthnot, therefore, judiciously contends that we should calculate by the most ancient Phænician talent. alluded to by Homer, (and, in consequence,

^{*} Vide Josephi Antiquit. lib. vii. and Arbuthnot on Ancient Coins, p. 42.

called by him *Homeric*,) of value far less confiderable. Probably Josephus gives us the true amount of that wealth, when he states the whole at the round sum of 100,000 talents; that is, the Alexandrian talent, most in use at the period of his writing.

Hiero, the Phænician monarch, we are told, instigated by personal friendship, and his admiration of the confummate wisdom of Solomon, in his favour broke through that iealous reserve which marked all the naval proceedings of that enterprizing nation. He not only affished the Jewish sovereign with his subjects to build a fleet for the express purpose of commerce, but also to navigate that fleet to the destined port, to the rich source of that wealth which exalted Tyre to her envied pre-eminence in power and splendor over all the cities of the ancient world. If the fatellite was thus bright in riches and in glory, with what furpassing, with what unequalled, lustre must the primary orb have been invested; for, it was not only from the golden Sofala, and the ports of Africa, that the obtained this infinite supply of bullion, but we have shewn that, in the mines of the Pyrenæan mountains, at once the PERU and Potosi of antiquity,

quity, she found an additional and neverfailing foring of overflowing treasure. I have already, in the preceding Differtation, given a very ample account of their abundant produce in the times of the Phænicians trading thither: but, when they ceased to be so abundantly productive of ore, it is impossible to ascertain. I need only add to that account, that, in the time of Strabo, the Romans kept forty thousand men constantly employed in those mines; and that they produced to them twenty-five thousand drachmas a day.* Full credit, therefore, may be given to the testimonies which the records of all nations bear to the profusion of gold and gems worn by the inhabitants, and displayed in the temples and palaces, of Tyre. Of her aftonishing wealth, and the rich species of manufactures in which The dealt, no more impressive evidence from profane authors need be adduced than the splendid donation sent by her to the temple of the Tyrian Hercules at Gades, and mentioned in the preceding pages; the golden belt of Teucer, and the golden olive of Pygmalion, exquifitely wrought, bearing Smarag-

^{*} Strabo, lib. vi. p. 379.

dine fruit: that is, berries of emerald, reprefenting olives in the utmost perfection. testimony of Apollonius, in Philostratus, who visited the temple of Gades, in the first century of the Christian æra, added to that of Herodotus, previously cited, concerning the dazzling ornaments of her own principal temple, feen by that historian many centuries before, the two lofty pillars of gold and emerald, which illuminated the whole dome by their reflected fplendor, are fully confirmed by the decided voice of Scripture itself; not only in respect to their elegant work in gold and ivory in the palaces of Solomon and the temple of Jerusalem, but more particularly and minutely in the following animated apostrophe, which is too intimately connected with many of the fubjects discussed in this volume, and exhibits too interesting a detail of the splendor of an ancient commercial metropolis to be omitted; for, in truth, it was the gold of Ophir and the filver of Spain that formed the basis of all her magnificence.

"O Tyre," exclaims the prophet, "thou hast said in thyself, I am a city of perfect beauty. Thy neighbours, who built thee, have forgot nothing to embellish thee. They have

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made the hull and the diverse stories of thy ships of the fir-trees of Senir. They have taken a cedar from Lebanon, to make thee a mast. They have polished the oaks of Bashan, to make thine oars. They have employed the ivory of the Indies, to make benches for thy rowers; and that which comes from Italy, to make thy chambers. Fine linen, with broidered work from Egypt, was that which thou spreadest forth to be thy fail. Hyacinth and purple, from the isles of Elishah, have made thy flag. The inhabitants of Sidon and Arvad were thy rowers; and thy wife men, O Tyre, became thy pilots. All the ships of the fea, and all their mariners, occupied thy commerce and thy merchandise. The Carthaginians trafficked with thee, and filled thy fairs with filver, with TIN, and LEAD. Javan, Tubal, and Meshech, were also thy merchants, and brought to thy people flaves and veffels of brass. They of Togorman traded in thy fairs with horses and mules. The children of Dedan trafficked with thee. Thy commerce extended to many islands, and they gave thee, in exchange for thy merchandifes, magnificent carpets, ivory, and ebony. The Syrians were thy merchants, because of the multitude of thy

thy works: they exposed to fale in thy fairs pearls, and purple, embroidered works of byffus, filk, and all forts of precious merchandise. The people of Judah and of Israel were also thy merchants, they traded in thy markets pure wheat and balm, honey, oil, and rosin. Damascus, in exchange for thy wares, so varied and so different, brought thee great riches, excellent wine, and wool of a lively and shining colour. Dan, Greece, and Mosel, traded in thy markets, iron works, and myrrh, and calamus. Arabia, and the princes of Kedar, were also thy merchants; they brought thee their lambs, and rams, and goats. Shebah and Ramah came also to traffic with thee; they traded in thy markets the most exquisite perfumes, precious stones, and gold. Thine were the most remarkable of all the ships of the sea. Thy rowers conducted thee upon the great waters. Thou hast been loaded with riches and glory: never any city was like thee. Thy commerce enriched the nations, and the kings of the earth."*

It should here be observed, that the prophet Ezekiel, to whom we are indebted for this

^{*} Ezekiel, chap. xxvii. and xxviii.

valuable picture of the grandeur of the Phœnician metropolis, flourished nearly 600 years before Christ, when Tyre was in the zenith of that glory, which shortly after bowed its head before the monarch of Assyria. To Assyria, therefore, and principally to Babylon, the mighty capital of the greatest empire the sun ever beheld, it is now necessary that I should direct the attention of the reader during our farther investigation of the curious subject before us, the treasures of gold and silver bullion amassed in the ancient world.

Affyria had no gold or filver mines of her own; but, being the central region of that part of Afia in which commerce ever most vigorously flourished, she absorbed, as in a vast vortex, the wealth in this article, in which she so super-eminently abounded. We are astonished, in the infancy of mankind, and in the dawn of science, to find works executed at once so costly and so stupendous. Those, fabricated in the precious metals alluded to, alone form the object of our present inquiry; and here, in the great temple of Belus, built by Semiramis, we find three prodigious statues, not of cast, for they are expressly said to have been of beaten, gold, representing Jupiter,

the father of all, Juno, the queen of heaven. and Rhea, the universal mother. The statue of Jupiter appeared erect, and in a walking attitude: it was forty feet in height, and weighed a thousand Babylonian talents. The statue of Rhea also weighed the same number of talents, but was sculptured sitting on a throne of masty gold, with two lions standing before her, as guardians of the statue, accompanied with two huge ferpents in filver, that weighed each thirty talents. The statue of Juno was in an erect posture, and weighed eight hundred talents: her right hand grasped a serpent by the head, and her left a golden sceptre, incrusted with gems. Before these three colossal figures stood an altar of beaten gold, forty feet in length, fifteen in breadth, and of the weight of five hundred talents. On this altar stood two vast flagons weighing each thirty talents; two censers for incense, probably kept continually burning, each weighing five hundred talents; and, finally, three vessels for the confecrated wine, of which the largest, that assigned to Jupiter, weighed three hundred talents, and those to Juno and Rhea six hundred talents.* Such is the relation given

^{*} Vide Diod. Sic. lib, ii. p. 98.

by Diodorus of the ornamental decorations of this superb fane, and, though borrowed from Ctesias, may probably be, for the most part, true. It certainly is in unison with the magnificent taste of the times, and might easily have been accomplished by the immense sums that slowed, in a golden inundation, into that capital from Arabia and all the adjoining provinces subject to the crown of Assyria.

If this relation, however, should appear wholly incredible, let us appeal to the authority of Holy Writ for an account of the exhibition of Affyrian wealth, scarcely less furprifing; and this display we find in the colossal image of gold which Nebuchadnezzar, after the plunder of Jerusalem, and probably from the superb spoils of its temple and royal palace, erected to his god Belus, that is, the Sun, whose ray matures the growing ore, the Sun equally adored with fimilar rites and by the same appellation, in ancient Britain and ancient Babylon, in the extensive plain of Dura. This statue, to form which was so basely prostituted the enormous aggregate of wealth heaped up by David and Solomon for a nobler purpose, and a far more refulgent deity, was fixty cubits in height, which there-

fore vastly exceeds that erected to Jupiter Belus by Semiramis, fixty cubits being nearly equal to ninety feet; it was also fix cubits in breadth; and the whole was of beaten gold. Now Dr. Prideaux computes the weight in gold of the former statue, viz. one thousand talents, to be equal to three millions and a half sterling, and the value of that of Nebuchadnezzar rifes confequently in proportion to its additional height.* That author, fearful of the apparent exaggeration, would allow only forty cubits to the statue, and twenty for the pedestal; but this is contrary to the express words of Scripture, and the dimensions will not appear incredible to those who confider that this colossus was probably intended as an exhibition of the hoarded wealth of the treasury of Babylon, and consisted of the golden spoils of Egypt, Syria, and Palestine, recently subdued by this powerful and oftentatious monarch. The whole, or, at least, far the greater part, of this wealth, afterwards, at the conquest of Babylon by Cyrus, fell into the hands of the Persian sovereigns, who, transferring the feat of empire and its

^{*} Prideaux's Connections, vol. i. p. 100.

accumulated treasures to Susa, invite our steps to the new metropolis.

Although, as has been before observed, there are at present no mines of gold or silver open in Persia, there are, according to Charden, evident remains of those that have been wrought in ancient times, and were either exhausted, or stopt for want of timber; an article in which that country is, in many parts, miserably deficient, especially in the desert Carmania, where those remains are most visible. From its being fo mountainous a region, as well as fo productive of fulphur and copper, in the neighbourhood of which gold is generally found, there can be no doubt of its still containing such mines, were a spirit of active industry set in motion to make the proper fearch; or, rather, were not the finews of that industry palsied by the iron hand of despotism.

For an abundant supply, however, of gold and silver, during the period that elapsed from Cyrus to the death of the last Darius, no internal resources were necessary to the Persians, since the whole wealth of Egypt and Asia continued to flow, by various channels, into that empire. In the first place, all the produce

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produce of the mines of Lydia, that made Cræsus, next to the sovereigns of Persia and India, (India, at that time but little known to the nations of Asia situated to the west of the Seendhu,) the richest monarch of the East, at the conquest of Sardis, fell into the hands of Cyrus: and, though we have no exact account of the particulars of that wealth, we are able to form some idea of it, from the magnificent presents which Cræsus is affirmed, by Herodotus, to have repeatedly fent to Delphos, and the grand holocaust, consisting of beds of gold and filver, ornamental vessels of the same precious metals, robes of purple, filken carpets, and other rich furniture, which he caused to be publicly burned in one enormous pile, in order to render that oracle propitious to his future undertakings; -a holocaust into which the wealthiest of the voluptuous citizens of Sardis threw also their most costly furniture, and in the very ashes of which was found fo much melted gold, that, according to the fame historian, out of the splendid metallic mass were formed one hundred and seventeen golden tiles; those of the greatest magnitude, six spans in length; those of the smallest, three spans; but all one span

in thickness.* There cannot, indeed, be adduced a more convincing proof of the unequalled wealth of the Lydians, nor of the transmutative power of ACTIVE WIDELY-DIFFUSED commerce, than the astonishing relation which we find in Herodotus, of the wealth of Pythias, a merchant of that country, who was enabled by that commerce, in afterages, when Lydia flourished in meridian splendor, under the powerful protection of the imperial dynasties of Persia, to present Darius, as we have before had occasion to remark, with a plane-tree and a vine of wrought gold; and, as he had thus shewn his munificence to one sovereign, so did he not less display hospitality blended with munificence to the other; for, when Xerxes marched with his innumerable army against Greece, the same Pythias not only entertained, at Celænæ, in Phrygia, the whole of this vast army, but made him a proffer, towards the charges of carrying on that war, of two thousand talents of filver, and three millions nine hundred and ninety-three thousand gold Daries. With which noble act of generofity Xerxes was fo charmed, that

^{*} See Herodows, lib. i. p. 47, et seq.

instead of accepting the proffer, he ordered feven thousand additional Darics to be given to Pythias from the royal treasury, to make up the round sum of four millions in gold.

In the fecond place, it should be remembered. that the whole amassed wealth of Egypt felt the plundering hand of Cambyses, whose vindictive fury led him not merely to plunder, but to destroy, the temples of Egypt; and that, at the burning of that of Thebes, the remains of the wealth faved from the flames amounted to three hundred talents of gold and two thousand three hundred talents of filver; but the richest article among the spoils of that temple was the stupendous circle of gold, inscribed with the zodiacal characters and affronomical figures, that encircled the sepulchre of Ofymandes. At Memphis, also, then the capital of the empire, he obtained, in the ancient palace of the Pharaohs, such an immense treasure in bullion, and ornamental vases, and statues of gold and filver, representing gods and deified men, as perhaps no palace ever before contained; and many of these statues were restored, some ages afterwards, to the transported Egyptians, by Ptolemy, the son of Philadelphus, when his armies had vanquished Antiochus.

Antiochus, the third fovereign of the dynasty of the Seleucidæ, and on whom, in consequence, the Egyptians bestowed the illustrious title of Euergetes, or the Beneficent. Such were the sources from which, independent of its flourishing commerce, the Persian emperors drew that enormous quantity of treasure which was necessary to sustain the unparalleled magniscence of their courts of Susa and Persepolis, and which in the end was doomed to reward the military ardour of the invading Greeks.

Previously, however, to our following Alexander in the rapid career of his triumphs over the humbled sovereign of Persia, we must digress a little from our subject, which is properly the bullion of the ancients, to one not less important and interesting, their coined money, which, according to the general judgment of medallic writers, was not in existence before the conquest of Babylon by Cyrus; though others, on the credit of Herodotus, fix the first coinage in Asia to the very early periods of the Lydian empire. In the course of the following strictures I may possibly be able to produce arguments for supposing mo-

ney to have been coined and current in eras still more remote.

ON THE ORIGIN AND ANTIQUITY OF COINED MONEY.

THE first commerce of mankind was carried on without the medium of any money. stamped or unstamped: it simply consisted in the barter of one commodity for another, according to the respective wants of the parties concerned in it. The greater or less urgency of the want, in general, fixed the higher or inferior price of the commodity; but the eye was often the fole judge, and quantity the chief rule of determining. There is a curious account in Cosmas, called Indicopleustes, of the ancient mode of carrying on traffic between the inhabitants of Axuma, the capital of Æthiopia, and the natives of Barbaria, a region of Africa near the sea-coast, where were gold mines, which will give us a tolerable idea of this primitive kind of commerce. Every other year, fays he, a caravan of merchants, to the number of five hundred, fets of from Axuma to traffic with the Barbarians for

for gold. They carry with them cattle, falt, and iron, to barter for that gold. Upon their arrival at the mines, they encamp on a particular spot, and expose their cattle, with the falt and iron, to the view of the natives. The Barbarians approach the mart, bringing with them small ingots of gold; and, after surveying the articles exposed to sale, place on or near the animal, falt, or iron, which they wished to purchase, one or more of the ingots, and then retire to a place at some distance. The proprietor of the article, if he thought the gold sufficient, took it up and went away; and the purchaser also secured and carried away the commodity he defired. If the gold was not deemed sufficient, the Axumite let it remain affixed to the article, till either more ingots were added to fatisfy the full demand: for it, or the first offered taken away. Their total ignorance of each other's language rendered this filent mode necessary, and the whole business terminated in five days, when the Axumite caravan departed homewards, a journey of not less than six months.* In these compacts, however, the eye must often have

^{*} Vide Cosmas Indic. page 138, et seq.

been deceived: and the bulk of an article was not always the proper criterion of its worth. fince some articles of great magnitude were of trifling value, while others of inferior bulk were in the highest estimation. It was also impossible, in many instances, to divide, without spoiling, the commodity in request, according to the proportion suited to the mutual wants and ability of the buyer and feller. It became absolutely necessary, therefore, to have recourse to some general medium in commerce. and that medium varied according to the produce of the country in which it was carried on. In some it consisted of shells, in others of cocoa-nuts, in others of leather or paper; fo that, if the reader will excuse the joke, we fee a paper-currency was established in the earliest ages. Such was the first rude money, a word which explains itself, being derived to us from moneta, fince it advised one of the price of an article.

The couries, or white shells, at this day used as currency in India, and the small Siamese coins, in form resembling nuts, are, in all probability, relics of this ancient usage before metals were so generally adopted as the representative signs of the value of articles of commerce.

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commerce. It was the beauty, firmness, and durability, of metals, that occasioned them to be so adopted, but it was many ages before they were stamped with any impression descriptive of their weight or value. It was the custom of the merchant, as in fact is still practifed in China, to carry a certain portion of gold or filver into the market, and, having previously furnished himself with proper instruments and scales, he cut off and weighed out, before the vender of the commodity wanted, as many pieces as were proportioned to the purchase of it. The great inconvenience and delay occasioned by this mode of carrying on commerce, foon induced the merchant to bring with him pieces of money, already portioned out, of different weights and value, and stamped with the marks necessary to distinguish them. There is very great reafon to believe that the earliest coins struck were used both as weights and money; and indeed this circumstance is in part proved by the very names of certain of the Greek and Roman coins: thus the Attic mina and the Roman libra equally fignify a pound; and the στατης of the Greeks, fo called from weighing, is decifive as to this point. The Jewish shekel was also a weight as well as a coin, three thousand shekels, according to Arbuthnot, being equal in weight and value to one talent.* This is the oldest coin of which we any where read; for, it occurs in Genesis, ch. xxiii. v. 16, and exhibits direct evidence against those who date the first coinage of money so low as the time of Cræsus or Darius; it being there expressly said, that Abraham weighed to Ephron four bundred shekels of silver, current money with the merchant.

Having considered the origin and high antiquity of coined money, we proceed to consider the stamp or impression which the first money bore. The primitive race of men being shepherds, and their wealth consisting in their cattle, in which Abraham is said to have been rich, when, for greater convenience, metals were substituted for the commodity itself, it was natural for the representative sign to bear impressed the object which it represented; and thus accordingly the earliest coins were stamped with the sigure of an ox or sheep. For proof that they actually did thus impress them, we can again appeal to the high autho-

Arbuthnot on Ancient Coins, p. 39.

rity of Scripture; for there we are informed that Jacob bought a parcel of a field for an bundred pieces of money. Genesis, ch. xxxiii. v. 10. The original Hebrew term, translated pieces of money, is KESITOTH, which fignifies LAMBS, with the figure of which the metal was doubtless stamped. We have a second instance of this practice in the ancient Greek coin, denominated Bsc. the ox; and we meet with a third in the old brass coins of Rome. (whence I before observed the public treasury was called *ærarium*,) stamped, before that city began to use gold and filver money, with the figure of a sheep, whence the Latin name pecunia. Signatum est notis pecudum; unde et peeunia appellata.* In process of time, when empires were formed, and men crowded into cities, coins came to be impressed with different devices, allusive either to the history of its founder, some remarkable event in the history of the nation, their accidental fituation, or the predominant devotion of the country. Thus the thekel of the Jews had Aaron's rod budding, with a smoaking censer. The Tyrians had their Petræ Ambrosiæ, and serpen-

[·] Plinii Nat. Hist. lib. xxxiii. cap. 3.

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tine emblems, of which some curious examples may be seen in the sisth engraving of this volume. The Athenian coins bore impressed an owl, and Pallas. The maritime race, who inhabited the Peloponnesus, had a testudo, or shell, as their symbol; the Persians, practised in the use of the bow, an archer, which is the constant device on the Darics; the Thessalians, a horse; the Byzantines, situated on the Thracian Bosphorus, a dolphin twisted about a trident.

Although I have combated the idea of the Lydian or Persian money being the first that was ever coined, I am induced, by the general and united attestation of ancient classical writers, perfectly to acquiesce in the judgment of medallists, that the coins of those nations were the first stamped with the effigies of the reigning prince; and the priority of coining money is, with great propriety and probability, affigued to Cræsus, the wealthiest monarch of Afia, when his capital was invaded and taken by Cyrus, who forbore to plunder that rich city, on the express condition, that both the monarch and the inhabitants should. without referve, bring forth their whole amassed wealth, which must have amounted to a prodigious H h 2

digious and almost incalculable sum. This conquest gave the Persians, who were before an indigent people, without any gold or filver currency, and pent up within the contracted limits of the province properly called Persia, not only the possession of a vast treasure, but of a wide and rich territory, and laid the foundation of their future grandeur. coined moneys of Croefus, from the effigies of that monarch being impressed upon them, were called Cræsei; but, as it seemed improper that they should continue current with that impression, after the conquest of Cræsus and the subjugation of his kingdom, Darius, that is, Darius the fon of Cyaxares, and the first of that name, under whom Cyrus then acted only as general-in-chief of the Persians and Medes, though afterwards their fovereign; that Darius, I say, it is conjectured, recoined the Cræsei with his own effigies, though he did not think it prudent to alter either the weight or value of a coin, then so generally diffused through Asia as the medium of commercial transactions. Thus recoined, and stamped with his own head, they thenceforth took the name of their new master, and from him were called Dageness, Daries, and are mentioned

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mentioned in Scripture, in periods posterior to the Babylonish captivity, by the name of ADARKONIM. None of the Cræsei, that we know of, have reached posterity, unless that very ancient gold coin, mentioned by Mr. Pinkerton, in his concise, but elegant and judicious, Essay on Medals, a coin presenting to view "a man, kneeling, with a fish held out in his left hand, and a sword, depending, in his right,"* should prove to be one. It is to be feen, with feveral other old Persian coins, in the late Dr. Hunter's capital collection; and the writer urges the possibility of its being one of the staters of Cræsus, not only from its having the rude globolity of early antiquity, and the indented marks of the first coinages, which were made by ponderous strokes of the hammer, upon one side; but because it bears the evident symbol of a maritime country, fuch as Lydia was, on the other. It is of very pale gold; and is about the usual weight of those staters, which was four drachmas.

When afterwards the fame Darius, by the valour of Cyrus, became possessed of Ba-

Pinkerton, vol. i. p. 286.

bylon, and found there that immense quantity of bullion, which has been before deferibed, he caused the greatest part of it to be melted down and coined into Darics. On these coins, the impression, on one side, was an archer, clothed in a long Persian tunic, and crowned with a fpiked crown, with a bow grasped by his left hand, and an arrow in his right: on the other fide, the effigies of the monarch himself. The pleasantry of Agefilaus, at a succeeding period, on the subject of these Daries, is well known; who, when compelled to retire from an invasion of Persia, by the force of Persian gold, that had bribed Sparta over to its interest, declared he had been defeated by thirty thousand archers. Very few of these coins have descended to our times; because the very same reasons which operated on the mind of Darius, to convert the Lydian into Persian coins, afterwards incited Alexander to melt down the Daries for the coinage that diffinguished the commencement of his new and still greater empire. Of the magnitude, however, of this famous coinage by Darius, we may form fome idea, from the great number already stated to have been in the possession of one man, I mean Pythias,

fo often alluded to, who offered his fovereign, towards carrying on the Grecian war, no less a fum than four millions of these Darics: and what vast additional sums still remained in the royal coffers will shortly be evident to the reader, when I return to the account of the plunder of the Persian palaces and temples by the Macedonian invader. All the real Darics are of extremely pale gold, of the purest kind known in those days, when the art of refining metals was not advanced to any high degree of perfection; I say all the real Daries, for the filver coins that generally pass under that name, as bearing similar impressions, though Persian, are of a far later coinage. The Darics, according to Dr. Bernard, weighed two grains more than one of our guineas; but, containing far less alloy, may be confidered as worth twenty-five shillings English.*

The next celebrated coin in antiquity is the Philippi of gold, stamped with the effigies of the father of Alexander the Great, when, as was before related, he conquered Crenides, on the confines of Thrace, and conferred his

[•] Dr. Bernard de Ponderibus, p. 171.

name on the gold coin, or xpuoos, of the Greeks: it was a didrachm, of the value of twenty filver drachmæ, and, allowing for the difference in the value of gold in those times and the present, may be intrinsically worth one pound of our money. Alexander, content with the full tide of glory which he was convinced would attend his name and actions in future ages, feems to have declined the celebrity which arises from multiplying the regal effigies upon coins; and, foon after his exaltation to the throne of Macedon, forbad the impression of his own portrait to be used at the mint. This was fo strictly observed, that we have only one small filver coin, a hemidrachm, struck during his whole reign, (which indeed was but short,) bearing his effigies, and that is an unique in Dr. Hunter's collection. exhibits a very juvenile aspect; and the reverse is a man on horseback, the usual ornament of Macedonian coins. His gold coins exhibit, on one fide, a head of Minerva; and, on the other, a Victory, standing: his silver, a head of young Hercules, and the reverse, Jupiter fitting: - a collection of symbols that doubtless flattered the pride of the victorious son of Jove, far more than the diffusion of the impression

pression of the head of a mere man. What pride or caprice, however, prevented being done by himself, was abundantly accomplished by his successors at Macedon and his admirers elsewhere; so that posterity are in no want of genuine similitudes of that wonderful man. The great generals, who partitioned out among themselves his mighty empire, happily did not follow his example; and, in the series of their respective coins, the medallist finds an attonishing and delightful proof of the perfection, in this line, to which the Grecian artists gradually arrived. It is beyond my purpose, which was only to present the reader with a general view of the subject of ancient coins, to enter farther into the examination of their merits and history. The medallic writers are numerous, and to the English reader, who may choose to proceed more largely in the investigation, Mr. Pinkerton's book will prove a very uleful guide. - It is necessary that we now return to furvey the utter fubverfion of the Persian empire, and plunder of all its immense treasures, by a comparative handful of determined Greek foldiers. I shall, first, faithfully sketch out the picture of that grandeur and those treasures: I shall I shall then, to use the language of the medallist, exhibit the reverse:—a dreadful reverse! unequalled in the annals of Asia and the history of man.

Never was there a more fudden change effected in the manners of a nation than that which took place in Persia, after the conquest of Babylon. The honourable indigence, and the strict regimen and laborious exercises, in which from infancy they had been trained, were now fucceeded by an oftentatious magnificence, a luxurious diet, and an indolent effeminacy. With the wealth, they caught the habits of the Lydians, and wallowed in all that unbounded voluptuousness for which the former are branded in the page of history. During the life of Cyrus, indeed, his example and authority kept up in the army fome remains of the ancient discipline; but the princes and nobles delighted rather to follow the example of Ciccius, and were plunged in excesses of every kind. The successors of Cyrus on the throne of Persia seemed to think the dignity of that throne was better supported by fplendor than virtue, and aimed to fecure the abject obedience of their subjects, by dazzling them with a glory that feemed more than than human; so devoted indeed were they to the shameless gratification, at any price, of their licentious and stimulated appetites, and so far had they exhausted every source of known terrestrial enjoyment, that one of them, it is well known, was not ashamed, by a public edict, to offer a splendid reward to any person who should invent a new pleasure.

Ancient writers speak with rapture of the beauty of imperial Sufa, and the magnificence of its sumptuous palace, so highly diffinguished, as to have been the refidence, during three months of the year, that is, during the spring feafon, of the great Shah-in-Shah, as Ecbatana was, during the fummer. The walls and ceilings of this palace were overlaid with gold, ivory, and amber, exhibiting the noblest defigns, wrought in the most exquisite taste. Its lofty throne of pure gold was raifed on pillars refulgent with jewels of the richest lustre. The monarch's bed, also of pure gold, we have already noticed, as shaded with the golden plane-tree and vine prefented by Pythias, on whose branches hung cluffers of emeralds and rubies. He reposed his head on a casket containing five thousand talents of gold, which was called the king's bolfter; and his feet rested on another, containing

containing three thousand talents of the same Every province of his vast empire daily furnished one dish, loaded with the richest rarities produced in it. He drank no water, but the pure cold wave of the Choafpes, carried with him, in filver veffels, whitherfoever he went. His bread was made of the finest wheat of Phrygia; Egypt supplied him with falt; the rich high-flavoured wines of Damascus alone sparkled in his cup; the foftest, fweetest, melodies soothed him during the banquet; and the loveliest women of Asia beguiled his hours of domestic retirement. When he marched to battle, the pomp of the procession was to the last degree splendid and folemn; and has been minutely described by Herodotus, Arrian, and Curtius; of whose various relations the following is the refult.

It commenced the moment the sun appeared above the horizon. At that instant, a trumpet, sounding from the king's pavilion, proclaimed the appearance of its beam, and a golden image of its orb, inclosed in a circle of crystal, was displayed on high in the front of that pavilion. The Persian banner, which was a golden eagle, the eagle of the sun, with its wings expanded, being also elevated, a body of Magi carrying on filver altars the facred and eternal fire, believed to have descended from heaven, advanced first. Then followed another band of Magi, chanting hymns in honour of the sun; and 365 youths, to represent the number of the days of the reformed year, clothed in flame-coloured vests, and bearing a golden rod, the symbol of his ray. After these, marched a large body of horse and men, bearing spears with their points downward. Ten confecrated horses, of surpassing magnitude, bred on the Nilæan plains, and caparisoned with furniture that glittered all over with gold and gems, preceded the chariot of the fun, (for fuch it was, though called by Herodotus that of Jupiter,) empty, and drawn by eight white horses, the equerries attending them clothed in white vests, and also bearing in their hands golden wands. Next came the Persian band, called immortal, ten thousand in number, all wearing collars of pure gold, and arrayed in robes of gold tissue. Next came the male relations of the fovereign, habited in purple vests, fringed with precious stones and pearl. The king followed immediately after, in a chariot drawn by Nifæan horses, a living mine of gold and rubies, and

and darting from his own person a glory fearcely less resplendent than that of the sun. whom he represented. He appeared seated on a throne, elevated above the chariot that bore him, and fustained by colossal figures of the Genii of the Persian mythology, cast in pure gold. The chariot was or gold, and from the centre of the beam, that glittered with jewels, rose two statues of pure gold, each a cubit in height, the one representing PEACE, the other WAR; over whose heads a golden eagle, the banner of Persia, spread its wings, as if to fanction the choice of the nations, whether hostile or pacific. Two thousand chosen horse, the king's body-guard, followed the royal car; fucceeded by twenty thousand foot, armed with javelins, decked with pomegranates of gold and filver. Ten thousand horse brought up the rear of the army of native Persians. The rest of the innumerable host followed at a distance, in separate divisions, according to the nations which they respectively represented.

The citadel of Susa is said to have been the great treasure-house of the kingdom: in it the ancient records of the Persian empire, from its foundation, were preserved. We are informed,

informed, by Diodorus, that Alexander carried away from this plundered capital no less than nine thousand talents of coined gold, and of gold and filver bullion forty thousand talents.* It must, however, have been in the more ancient periods of the empire that Sufa was the chief treasury; because, great as this fum appears, it is comparatively trifling to what, according to the same author, that insatiable plunderer of the wealth of Asia found at Persepolis, which amounted to such an enormous fum, that, besides three thousand camels which were loaded with it, all the adjoining countries were drained of their mules. asses, and other beasts of burthen, to convey it away from a city, on which he wreaked his particular and unrelenting vengeance, in return for the impolitic burning of the Grecian temples by Xerxes.+ The total aggregate, in bullion, obtained at Persepolis, Diodorus states at one hundred and twenty thousand talents of gold, independent of the precious gems, the costly furniture, the vessels of chrystal and agate, the vests of Tyrian purple and gold

[·] Diodorus Siculus, lib. xv.lii. cap. 65.

⁺ Ibid. lib. xvii. p. 63.

embroidery, found in profusion in the houses of the Persian nobles and merchants. At the taking of Damascus, after the battle of Islus, he found in the royal coffers two thousand fix hundred talents, in coined money, and five hundred in bullion, and with the other treasures, taken in that wealthy city, loaded feven thousand mules. Ten thousand talents. at one time, and thirty thousand at another, were the sums offered by Darius to Alexander, as the ranfom of his captive wife and daughters. The battle of Arbela put him in possession of all the costly utensils and splendid equipages of Darius, with four thousand talents in money. In Pasargada he found six thousand talents; and, in the royal city of Ecbatana, according to Strabo,* no less than one hundred and eighty thousand talents.

Of these immense sums heaped up together by Alexander in his rapid conquest of Persia, he was by no means sparing in the use; his largesses to his soldiers at different times were great beyond calculation; and, in his sumptuous and repeated banquets, he aimed to display the magnificence rather of a god than a man-

[·] Strabonia Geograph. lib. xv. p. 741.

Towards his friends and favourites, too, he manifested his liberality in a manner equally unparalleled, fince he presented Aristotle, his preceptor, for his natural history of animals, with no less a sum than eight hundred talents. or one hundred and fifty-five thousand pounds:* and, on the funeral only of his beloved Hephæstion, he expended twelve thousand talents, confiderably above two millions sterling.+ Having transported all these myriads to Babylon, which city there is every reason to think he meant to make the metropolis of his new empire, THE WORLD, as Alexandria was to be the staple of its commerce, this mighty conqueror there perished, the victim of intemperance. Not content with the laurels obtained by the subjugation of Asia, and the honour of having rewarded Aristotle, the invincible Alexander must ravish from his comrades the chaplet of the bacchanal; and the capacious Herculean goblet of two снож,‡ configned him in the bloom of life and glory to that grave into which his cruel ambition had re-

Athenæus, lib. xii.
 † Diod. Sic. lib. xvii.

I The x34 was an Athenian measure, holding seven pints, frequently used at sessions, and drank off by way of bravado.

cently precipitated the unfortunate Darine. After his decease, independent of gold and filver statues, vales, and other ornamental furniture of the palace of Babylon, in the treasury of that city were found one hundred thousand talents, a fum exceeding nineteen millions sterling, but which will excite no wonder in the reader's mind, when he is informed, from Justin, that the total amount of the tribute annually arising from his conquest of Persia. India, and the other empires of Asia and Africa, amounted to three hundred thousand talents, or upwards of fifty-eight millions of our money.* What became of this enormous treasure, the greatest the sun ever shone upon. will presently be unfolded, when we display new empires bursting from the ashes of this costly phoenix, confumed by its own blaze: and exhibit Egypt, Syria, and Macedon, glittering in the spoils of the Higher Asia. But before I introduce my readers once more to the folendid courts of the Ptolemies, the Sciencidæ, and the new Macedonian dynasty, some important collateral events must be recapi-

^{*} Justin High. lib. xiii. p. 447.

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tulated, and the field of the gorgeous India more minutely explored.

In enumerating the ancient mines. I ought not to have omitted more particularly mentioning, as not the least celebrated, the filver mines of Attica and the golden mines of Thrace. The annual produce of the mines of Sunium I do not find precisely stated, though that it was very confiderable may be collected from this circumstance, that, whereas in Asia, according to Herodotus, the proportion of gold to filver was as one to thirteen; at Athens, according to Plato, it was but as one to twelve.* Of the produce of the Thracian mines, re-opened, after the conquest of Thrace, by Philip, king of Macedon, we can state, with certainty, from Diodorus, that it amounted to one thousand gold talents annually, or near three millions of our money, which went, by hereditary claim, additionally to swell the treasures of the great Alexander. + The principal hoards, however, of treasure, both in bullion and coined money, among the Greeks, we know to have been in their temples, which

^{*} See Herodotus, lib. iii. and Plato in Dialog. Hipparchus.

⁴ Diodorus Siculus, lib. jii. p. 249.

were crowded with presents of immense value, brought by the superstitious from every part of Greece. These temples were considered as national banks, and the priests officiated as bankers, not always indeed the most honest, as was once proved at Athens, where the state-treasurers, having expended or embezzled the public money, had the audacity to fet fire to that part of the temple of Minerva where the treasure was contained, by which sacrilegious act that magnificent fane was near being wholly confumed. Their purpose, however, was fully answered, since the registers of the temple were reported to have perished with the treasures, and all responsibility precluded.

The temple, just mentioned, the superb fane of Jupiter Olympius, at Elis, and that of Apollo, at Delphi, were the principal of those sacred depositaries. The priests, at all times, concealed the total sum of the treasures lodged in them with too much caution for us to know the amount, yet, when the Phocenses, urged to despair by the exactions of the Thebans, seized on the treasures of Delphi, they amounted to ten thousand talents, above two millions two hundred and fifty thousand pounds

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pounds sterling; * and probably that but a small portion of what holy perfidy had previously fecured. Those deposited at the great temple of Ephefus, confidered through all ages as inviolable, probably far exceeded those of the three last-mentioned. After all, whatever credit may be due to the piety of mankind in devoting their gold and filver to the fervice of the deity, it was extremely impolitic to make their temples, as was the custom through all antiquity, the receptacles of fuch unbounded wealth; fince it served only to spirit up every desperate invader of Asia to acts of the most nefarious plunder and facrilege, as was dreadfully and repeatedly experienced by the miferable race of Palestine. Violent and reiterated as were the outrages committed in the Holy Land in the successive irruptions of their rapacious neighbours, they were by no means fo extensive and ruinous as the desolation which the fanguinary fury of Mahommedan superstition, hurled with its wasteful hand over the fertile provinces of Hindostan, and through her august pagodas; pagodas overslowing for

Diodorus Siculus, lib. xvi. cap. 76.

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ages with the accumulated wealth of the whole western world.

I have already shewn, that it was to the shores of India that the great current of the treasures in gold and filver, produced by the mines of Spain, flowed, to be there fwallowed up in a vortex that never regurgitated the fhining spoil. Imagination is scarcely able to conceive the magnitude of the amount, in bullion and coined money, amassed during so many centuries in that feeluded region of Afia: and the historians of Mahmud, of Gazna. who principally enjoyed the plunder of it, are at a loss for words to describe the astonishment and exultation of that prince, whose mind equally felt the goad of avarice and ambition, at the fight of it. They endeavour to imprefs us with some faint idea of it. by afferting, in their hyperbolical way, that he there saw a tree of pure gold, of an enormous fize, growing naturally out of the foil:* which, though doubtless to be understood allegorically, may approach nearer the truth than some other of their romantic strains, fince, to imitate vines and other trees in gold

[·] See Oime's Hindoffan, vol. i. p. 9.

was all ancient and very favourite cultom of the Indian metallergists; and I have already. in former parts of this work, given two very appointe influences of it. The first is from Curries, who, deferibing the palace of the firzurious monarch Musicanus, whose domain was fiftrated towards the mouth of the Indus. that anciently rolled down gold from its mountainous fource, particularly mentions the golden vines that twined around each of the columns that fulfained the portico of his palace, in whose spreading branches were seen interspersed birds of filver, and others of various coloured enamel, to refemble nature. The fecond was the splendid gallery, seen by Tavernier, in the palace of Agra, which was partly covered with a kind of lattice work of gold. over which the tendrils of a golden vine diffused themselves, bearing fruit, of emerald, rubies, and other precious stones, refembling grapes in their different advances towards maturity; but this magnificent project he was obliged to-drop, as, according to that traveller, it would have taken up more riches than all the world could furnish. The fame device I have had repeated occasion to mention as much in esteem at the Persian court.

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In evidence of their superabundant wealth in bullion may be enumerated the expiatory oblations for certain offences, ordained by the Hindoo code, to be made in that metal by the ancient rajahs, and which, in fact, were frequently made to atone for, or to avert, evil; as, for instance, the weight of the person presenting the offering, in gold or filver; TREES AND VINES OF GOLD; golden elephants; golden horses and cows; and even chariots, drawn by horses and elephants, entirely of gold.*

The principal use, to which the Indians seem to have applied the immense quantity of bullion, from age to age imported into their empire, was, to melt it down into statues of their deities; if, indeed, by that title we may denominate the personisied attributes of the Almighty and the elements of nature. Their pagodas were anciently crowded with these golden and silver statues; they thought any inferior metal must degrade the Divinity, and the sacred emanations that issued from the Source of all Being. Every house, too, was crowded with the statues of their ancestors, cast in gold and silver; those ancestors that

^{*} Aycen Akbery, vol. ni. p. 229.

were exalted to the stars for their piety or valour. This custom of erecting golden statues, in their houses and temples, to brave and virtuous men, feems to have remained long after the time of Alexander; for, we are told, by the fame Apollonius, that he faw in India two golden statues of that hero, and two of brass, representing Porus, the conquered Porus, and therefore of inferior metal.* very altar of the temple was of massy gold; the incense flamed in censers of gold; and golden chalices and vases bore the honey, the oil, the wine, and the fruits, offered at their blameless sacrifice. I have already mentioned the temple of the Sun, or rather of Auruna, the day-star, described by Philostratus, whose lofty walls of porphyry were internally covered with broad plates of gold, sculptured in rays, that rdiverging every way, dazzled the behold while the radiant image of the adored deity burned in gems of infinite variety and unequalled beauty on the spangled floor. The floor, also, of the great temple of Naugracut, in the northern mountains. even so late in time as the vifit of Mandesloe,

[·] Philostrat. lib. ii. cap. 17.

we have feen, was covered with plates of gold; and thus the Hindoo, in his purer devotion, trampled upon the god of half mankind. the processions, also, made in honour of their idols, the utmost magnificence prevailed: they then brought forth all the wealth of the temple, and every order of people strove to outvie each other in displaying their riches and adding to the pomp. The elephants marched first, richly decorated with gold and filver ornaments, studded with precious stones; chariots, overlaid with those metals, and loaded with them in ingots, advanced next: then followed the facred fleers, coupled together with yokes of gold, and a train of the noblest and most beautiful beasts of the forest. by nature fierce and fanguinary, but rendered mild and tractable by the skill of man; an immense multitude of priests carrying vessels, plates, dishes, and other utenfils, all of gold. adorned with diamonds, rubies, and sapphires, for the sumptuous feast of which the gods were to partake, brought up the rear.* Duing all this time the air was rent with the found of various instruments, martial and

^{*} Strabo, lib. xv. p. 710.

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festive; and the dancing girls displayed, in their sumptuous apparel, the wealth of whole provinces exhausted to decorate beauty devoted to religion.

If the zeal of the Arabians to make profes lytes, added to their infatiable avarice, had not burst upon India in such a torrent of widewasting destruction, so little did the Greeks and Romans know of the internal provinces of India, we should probably to this day have remained in ignorance of the riches with which their palaces and their temples overflowed. Their native monarchs, grey with age, and venerable for wifdom, would still have poised the equal balance, and still wielded the righteous fabre. But, when the crescent of Mohammed rose to shed its baleful lustre on the banks of the Seendhu, the order and harmony, immemorially established throughout that vast empire, by the profound policy of its legislator, instantly fled; all the sanctities of religion, and all the bulwarks of ancient law, were alike trampled upon; the fortitude of the rajah availed him not, and the priest in vain thundered forth his anathemas. The tiara was rudely torn from the head of the former, and the golden flumber of the latter

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was for ever broken. No palliation, no compromise, was admitted. The bigotted fury of the first invaders of India urged them to exterminate rather than subdue: the tithe would not content them; their merciless grasp seized the whole spoil. The western provinces first felt that fury; and, in my account of Lahore, in the Geographical Differtation, I had occafion to intimate the enormous treasure found only on the person of the rajah of that province; who, when taken captive, had around his neck fixteen strings of jewels, each of which was valued at above a hundred and eighty thousand rupees, and the whole at three hundred and twenty thousand pounds sterling; a fum, however, comparatively trifling, compared with that of which the fultan of Gazna afterwards became mafter in his irruption into the same province, and which Mirkhond states at seven millions of coin in gold, feven hundred maunds of gold in ingots, together with an inestimable quantity of pearls and precious stones.* The maund is a Persian weight, varying in different parts of the East, but never estimated below forty pounds.

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Let us attend this valiant marauder on all nother or two of his plundering excursions into Hindostan. At the holy fane of Kreeshna. at Mathura, he found five great idols of pure gold, with rubies for eyes of immense value. He found also there a hundred idols of filver: which, being melted down, loaded as many camels with bullion; and it will be remembered that the usual load which this powerful animal carries is from 750 to 1200 lb. weight. varying according to its magnitude. At the great temple of Sumnaut he found many thousand of gold and filver idols of smaller magnitude, a chain of folid gold, which was fuspended from the roof, and weighed forty maunds, besides an inestimable hoard of iewels of the first water.* This prince, a day or two before his death, gave orders for the whole wealth of his treasury to be placed before him; and, having for fome time, from his throne, feasted his eyes upon the innumerable facks of gold, and caskets of precious stones, burst into tears; possibly from anguish at the thought of leaving so much treasure behind,

^{*} See Herbelot on the at rele Mahmul, of Garna, and Petalita; pages 73 and 86.

but, far more probably, first and cutting reflection of having obtained in a matthe plundered Hindoos, by a feeles of the most atrocious murders, under the founding and delusive name of conquest.

Astonishing as these accounts on the wealth. found by the first conquerors of India, may appear, yet, when we confider that this is. the accumulated undiffurbed wealth at a great empire, that had, for nearly three thouland years, been absorbing into its bosom the gold and filver of the whole world, they will not be found absolutely incredible, though poinbly, in some degree, exaggerated by the penof Eastern historians. It should also be remembered, that not only the whole western world had been thus long tributary to India for her gems, linen, and spices, but that the mines of the Aurea Chersonesus, generally thought to be Siam; those of Japan, productive of the purest ore; those of Pegu, Sumatra, and Borneo, have immemorially, through one channel or another, supplied the markets of India with these precious metals; and, when once imported either into India or China, we know that express and severe laws forbade its exportation, except when blended and incorporated

corporated with the brocades and other rich manufactures of those countries. In direct proof, however, that the above splendid details do by no means originate merely in the fanciful brain of the Aflatic biographers of the Gaznavide fovereign, may be adduced the almost-infinite treasures obtained by Gengis, Timur, Baber, Nadir, and all the other fuccessive plunderers of Hindostan, down to the fordid wretch, who, not many years fince, tore down the plates of filver from the ceiling of the Divan of Delhi, broke up the floors of that palace for concealed treasures, and after having meanly feized on and fold the robes of the feraglio, endeavoured to extort, by the most excrutiating pangs of famine, from the humbled emperor and his attendants, that wealth which the repeated ravage of his limited domain did not permit the last of the race of Timur to possess. The riches obtained in these invasions shall be discussed in the fucceeding Sections, in which I shall recount the wealth of modern times, and the fources of it, and compare it with that of the ancient would. I shall commence with an historic view of the successors of the hero of Macedon, who, flushed with conquest,

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conquest, and loaded with the spoils of plundered Asia, are urging their triumphant progress to the respective kingdoms, which they have mutually, but faithlessly, stipulated to make the limits of their ambition.

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SECTION II.

The Author, in this Section, returns to the Confideration of the Wealth obtained by ALEX-ANDER, and its Dispersion by his Successors, the Prolemies of Egypt, the Seleucidæ of Syria, and the Macedonian Sovereigns. - A Description, from ATHENÆUS, of a magnificent Festival, of the Phallic Kind, celebrated at ALEXANDRIA in EGYPT. in which a very large Portion of the Golden and Silver Spoils of BABYLON was displayed. -A Second Description, from the same Writer, of the splendid Pomp and Procession solemnized by Antiochus Epiphanes, at Daphne, in Syria; and exhibiting a still farther Display of the plundered Treasures of the PERSIAN Empire. - A Third, from Plutarch, of the Riches found in the Palace of PERSEUS, the Vol. VII. K

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the last King of MACEDON, and displayed to the ROMAN People during the Triumph of PAULUS ÆMILIUS, the Conqueror of MACE-DONIA. - The Whole accumulated Treasures of ASIA stated to have finally centred in ROME, and Instances enumerated of the astonishing Wealth possessed by some of the private Citizens of that Republic. - Of those Treasures, a considerable Part dissipated by their unbounded Prosligacy; a fill more confiderable Portion fell to the Lot of the Goths, VANDALS, and other barbarous Nations who plundered Rome; but by far the most considerable Portion was buried, during the Times of Tyranny and Turbulence, that marked the Reigns of the latter Emperors, in that Earth from which it originally came.

THE extent of the dominion and the magnitude of the spoil obtained by Alexander, exciting not less the ambition than the avarice of his captains, for a long time engaged them in the most unrelenting hostilities, and became the occasion of deluging Asia with new torrents of blood. The final result of those contests

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contests for wealth and empire, it is well known, was the firm establishment of Ptolemy on the throne of Egypt and its vast dependencies: Seleucus, on that of Syria, with all those rich provinces of Asia that formed the Persian empire; Cassander, on the throne of Macedon and Greece; and Lyfimachus on that of Thrace, Bythinia, and all the remaining territories won by the fword of Alexander. It may, indeed, be reasonably supposed, that no inconfiderable share of the coined money in the treasury of Babylon was diffipated in the course of the violent struggles of the contending parties, but still the great mass of bullion remained unviolated; and each competitor carried away to his respective dominions such a proportion of gold and filver vases, statues, and other ornamental furniture of the fuperb palace of Babylon, as might be mutually agreed on. But Ptolemy, the most powerful, from interest, talents, and kindred, (for, he is with great reason supposed to have been the brother of Alexander.) seems to have obtained the largest share; since, without it, he never could have executed those stupendous projects, kept up that magnificent court and those K 2

those expensive establishments, and maintained those vast armies and fleets, whose number we have before recapitulated. particular project, indeed, that of reviving the trade of Egypt with Arabia, India, and the higher Æthiopia, could not fail of being attended with circumstances the most auspicious to his revenues; and bringing fuch an influx of wealth into that kingdom as it had never witnessed under the most potent of her ancient sovereigns. Near the close of a long and glorious, though, during its early periods, turbulent, reign, this wife prince, to prevent the court-cabals and jealous contentions usual at the decease of great Eastern monarchs, refolved to affociate with himself in the imperial dignity his fon Ptolemy Philadelphus; and it was at the grand procession, which took place at the coronation of that august prince, that all the wealth of Egypt in these articles was displayed. The particulars of this pompous festival are related by Athenæus with a minuteness which there is no occasion for me to imitate, my object being, principally, to prefent in order before the reader's view the costly remains of the Assyrian and Persian grandeur, and I may also add that of the

the ancient Pharaohs; not only that portion of it which was plundered by Cambyses, but, in all probability, much of that which the brave, but unfortunate, Nectanebus, the last of her proud dynasty of native sovereigns, carried away with him into Æthiopia, when he sled before the ravages of Darius Ochus; and which might have floated back to Alexandria in the reslux of the revived commerce of Egypt with the empire beyond the cataracts.

A feries of tents, the hangings of which were fabricated of the richest materials which the looms of the East could furnish, the gold and silver brocades of Persia, the sine linen of Egypt, and the delicate cottons of India, composed the royal pavilion. It was adorned with numerous statues, sculptures, and emblematic paintings, allusive to the grand occasion; the elaborate work of the most exquisite artists that Greece could produce. The pillars that sustained the pavilion were of massy silver, and shields of gold, suspended on high in every part of it, proclaimed at once the magisticent and warlike genius of the sovereign of Egypt.

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An artificial cavern, funk in a remote part of the pavilion, was affigned to the comic, tragic, and fatyric, actors, who there feafted upon gold plate and drank out of gold cups, and who, occasionally issuing from their recess, alternately entertained the company with the display of their respective talents. On the roof glittered two golden eagles, the ancient banner of Persia, and probably from that nation adopted by their victors; each eagle fifteen cubits in height. Along the fides of the pavilion were ranged one hundred fofas, adorned with rich embroidered coverlets, and of which all the folid parts were gold; the feet having the form of sphinxes. each of these sofas were placed golden tripods. or footstools, two for each; while on one fide of the fofas were placed one hundred gold dishes, with golden phials for lavation; and on the other as many golden veffels, richly fet with jewels. The whole value of the plate thus exhibited to view, our author informs us, amounted to ten thousand talents.

No adequate conception can be formed of the grandeur and brilliancy of the procession. Numerous victories, with expanded wings of gold,

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gold, were first borne along. Next, followed a double altar, six cubits in height, wreathed with foliage of gold, decorated with golden ornaments and instruments of facrifice. and bound round with a crown of gold. Then came one hundred and twenty youths, each carrying a vafe of gold; and these were fucceeded by forty fatyrs, wearing on their heads, and bearing also in their hands, crowns of gold. Two Sileni, each bearing a gold caduceus, and between them a man of gigantic stature carrying also a proportional caduceus of the same metal. These were introductory to the peculiar deity upon whose fports they attended, Bacchus, to whose numen the pomp was devoted. And now were borne aloft two mighty vafes of gold, called Θυμιατηρία, or medicine of the foul, with a square altar of solid gold, sacred to that deity. Another band of fatyrs, carrying vales of gold, immediately preceded Bacchus himfelf, a figure ten cubits in height, enthroned in a car drawn by a hundred and eighty men; before him stood a vast Laconic goblet, big enough to hold ten meretiæ; a measure of a hundred pound weight. This was followed by a tripod of gold, upon which there was placed K 4

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placed another Superapion, and two gold phials preceded Nysa, the nurse of Bacchus, a figure of the height of eight cubits, wearing a gold crown, and holding in her hand a gold phial. She was followed by a hundred and twenty Sileni and satyrs, some of whom carried dishes, others phials, others capacious Therilcean cups of gold. Such was the order and march of those who were to display the treasures in golden ornaments and utensils of the sumptuous court of the Ptolemies.— Those fabricated of silver were not less numerous and stupendous, and are thus detailed by Athenæus.

First was exhibited a crater of that metal of such enormous magnitude, that the car in which it was placed was obliged to be drawn along by six hundred men; it was so ample as to contain six hundred meretræ; and the margin was enriched with a crown of gold, set with all manner of precious stones. It was followed by two other silver vases of inferior dimensions, but still vast; for they were twelve cubits in breadth, and six cubits in height. Then slowly moved in order, before the whole assembled city of Alexandria, gazing in prosound assonishment,

the under-mentioned costly articles: ten huge tubs of filver; fixteen filver flaggons, the largest of which contained thirty meretræ. and the least five; ten filver caldrons; twenty-four vales, each with two handles, on five falvers; two filver preffes, containing twentyfour goblets; a table of massy silver, of the height of ten cubits; and thirty other tables fix cubits high; four tripods of prodigious magnitude, the largest fixteen cubits in circumference; the three others, of inferior magnitude, were adorned in the middle with precious stones; twenty-four Delphic tripods of filver, still less, and of a different fashion; twenty-fix pitchers for water; fixteen Panathænaic amphoræ; and a hundred and fixty other filver vessels of all fizes, of which, however, the least held not less than two meretræ; that is two hundred pounds weight. Surely, Mexico itself, that mine of filver, when Corres made his triumphal entry into that capital, could scarcely have exhibited a grander spectacle. But the torrent of wealth, poured forth from the new into the old world, will form a subject of suture confideration. Let us attend (for, we have not half gone through this magnificent proceffion)

cession) to the remaining articles of regal grandeur displayed at this proud festival in Egypt, the spoils of the plundered temples and palaces of Persia, and probably of many of those which, on the Panjab and on the rich shore of the Indus, experienced the fury of Macedonian avarice. The veffels already described, from their enormous dimensions, feem to have been appropriated to the fervice of the temple folely, and fully verify all that was faid above, concerning the riches of those of Belus and the Dea Syria; the infinity of vales, all of gold, to be now enumerated, probably formed part of the Mendid furniture of the palaces of Sufa. E. Alis, and the great Babylon.

This part of the process enced with the exposition of four and two Corinthian vases of the finest so, each of which held eight meretræ. A press, or side-board, followed, bearing ten goblets and two vases, each of which held the quantity of two meretræ. Then came in order the following articles: twenty-two vases called Psysteres, the largest containing thirty meretræ; and the least, one; four noble tripods of gold; a vast machine, or case, of gold, ten cubits in length,

for holding the vases, divided into fix compartments, curiously engraved, and adorned with figures of animals, four palms high; two very large goblets; two salvers of gold, four cubits in diameter, and three others of less dimensions; ten amphoræ, or great jars of gold; a golden altar, fix cubits high; and twenty-five pateræ.

We now come to circumstances that prove this festival to have been of the Phallic kind. as indeed were all the Bacchanal festivals of ancient æras, Bacchus representing the sun, the great invigorative power of nature, who ripens the ore in the mine, and therefore properly dedicated to him. In this part of the pomp, gold and filver are promiscuously introduced, and I am inclined to think the circumstance allusive to his own conjunction with the moon; filver being her chemical diftinction. Confonantly to the idea abovementioned, fixteen hundred youths, in the flower of their age, now appear carrying vafes of gold and filver, and three hundred and twenty of that particular fort of gold veffel, called, by the ancients, Yuxthots, vafa in quo vinum refrigeratur, or immense vases, used in the hot Eastern countries for the purpose of cooling

cooling wine. Young men, of more mature years, now fucceed, carrying pots of gold and Next a train of nymphs, sporting around an artificial cave, drawn along in a car, appeared in crowns of gold, while Mercury waved over their heads a gold caduceus, that is, in fact, a thyrsus encircled with serpents. Bacchus now re-entered the plain with the same gigantic form, but exalted upon an elephant; a radiated crown of gold encircled his temples, and he wielded in his hand a gold thyrsus of considerable magnitude. Another elephant followed, upon whose neck rode a fatur, having on his head a crown of gold; the elephant also had a gold crown, and his harness and caparisons were entirely of that me-Five hundred young virgins followed, all decked with crowns of gold; after them, one hundred and twenty fatyrs in complete armour, some of filver and other or hass; and these, to render the for ...ied and diverting as possible, v ad by five troops of affes, glittering and and filver trappings, with fileni and fatyrs mounted on their backs. Next came fixty Æthiopian favages, carrying vases full of gold and filver coin, and loaded with the gold-dust which their

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their country so abundantly produces. Priapus was too important to be excluded from a Phallic festival, and therefore he appeared conspicuous with a brilliant diadem of gold. The city of Corinth, then the centre of luxury and voluptuousness, was represented by a female of great majesty and beauty, and wore a diadem of equal brilliancy. Alexander himself conjured up from the shades of Erebus, accompanied by Ptolemy and his other favourite generals, was feen stalking among the motley croud, admiring the magnificence of his new-built city, and issuing orders for the conquest of new worlds. Before him, was carried a monstrous vase of gold, possibly in allusion to his death by the Herculean cup, and it was full of fmall golden cups, by which the stream of intemperance flowed among the individuals present at the fatal banquet. But now a still more splendid and crowded scenery took place, and the great distinguishing pageants of the pomp were ushered in by a vast and beautiful train of women, representing the cities of Ionia and the Grecian islands, all bearing crowns of gold, inscribed with the name of each city, represented and decorated with a profusion of golden ornaments allusive

to its peculiar history and commerce. They moved on majestically, with measured step, before a four-wheeled car, bearing an immense thyrsus of gold, ninety cubits long; and by its fide a filver lance of the length of fixty cubits. On another fuperb car was elevated a PHALLUS of gold, one hundred and twenty cubits in length, and of the circumference of fix cubits: crowned on the fummit with a radiated star that blazed in gold. Three hundred youths followed this stupendous ensign of Bacchus, wearing on their heads crowns of gold, and carrying, in their hands, guitars overlaid with plates of that metal, which founded forth symphonies that waked the transported foul to the pleasures of love and the festivities of wine. The procession, in honour of Bacchus, closed with a procession of no less than two thousand bulls, the animal sacred to that deity, each wearing a frontlet of gold, furmounted with a golden crown; and also adorned with a collar and ÆGIS of gold. - Bacchus, under the terrestrial name of Ofiris, being the god-king of Egypt, and the founder of its most ancient dynasty, the reader will scarcely be furprifed, that, in the celebration of his rites, all the treasures of that kingdom should

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be displayed, and that it even surpassed in splendor the pomp of Jupiter and other deities, which now took place, but which can only be cursorily noticed.

As Alexander was the fon of Jupiter, his statue, in mastly gold, appeared conspicuous in that procession, and, after them, were borne feveral royal thrones, fabricated of gold and ivory, (among them, probably Solomon's,) to mark his subversion and seizure of the imperial thrones of Asia. All these thrones bore crowns of gold, and golden connucopiæ, a fymbol which we fee constantly impressed on the coins of the Ptolemies. Nothing, however, could equal in value or lustre the gorgeous throne of Ptolemy Soter himself, set with jewels, and decorated with a crown; in making which, our author informs us, were expended ten thousand pieces of gold, though of what weight he does not specify. Then followed three hundred cenfers of gold, in which were burned the richest perfumes of Egypt and Arabia, and which wafted around the affembly those exquisite odours so necessary to relieve the spirits, that began to be wearied with a procession so prolonged, though so brilliant. After the censers, were borne fifty gilt altars, with

with crowns of gold on each, and on one of which were fixed four torches cased with gold, fix cubits in height; twelve gilt hearths, of vast dimensions, for the sacred fires: nine Delphic tripods of folid gold, four cubits in height; eight others, fix cubits high; another, worthy of Apollo himself, thirty cubits in height, adorned with animals, wrought in gold, each five cubits high, and circled with a chaplet of gold, formed to refemble vineleaves. Besides these, there was an infinite variety of veffels richly gilt, which it is beyond our purpose to enumerate; but the historian, fumming up the number of gold crowns, exhibited in the pomp of Jupiter alone, makes the whole amount to three thousand and two hundred, independent of a most magnificent one, of the height of eighty cubits, which was placed over the portal of the temple of Berenice, the wife of Ptolemy, but taken down to increase the unequalled splendor of this festival.

The most remarkable articles exhibited in the pomps of other deities were a great ægis of gold; the innumerable crowns of gold worn by the virgins that contributed to form those pomps; a gold thorax of twelve cubits; another of silver, eighteen cubits high; a peculiarly splendid splendid diadem formed to resemble oak-leaves; and glittering with precious stones; twenty shields of solid gold; sixty-four sets of complete armour all of gold, with greaves of gold, probably of a vast magnitude, and these were displayed in the procession in honour of Mars or Hercules; dishes, phials, vases, and pitchers, of gold; and, in particular, sive tables decorated with gold goblets; a prodigious cornucopia of gold, of the height of thirty cubits; the whole pomp being closed with twenty carts loaded with smaller vessels of gold; and four hundred full of pateræ, vessels, and other utensils, of silver.*

The reader, who does not possess a warm Oriental fancy, may possibly be inclined to think all this a fable wilder than Arabian; and yet Athenæus is an author of great respectability, and due attention to what has before been observed, concerning the rich and abundant sources whence the treasures of Eastern princes were derived, renders the whole account extremely probable; for, notwithstanding all the expensive, and some disastrous, wars, in which the Ptolemies were engaged

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^{*} Vide A ierwi Deipno'ophist, lib. v. p. 197 to 203. Edit. Cassachen.

for a feries of years with the kings of Syria, their potent rivals in wealth and fame, from the Roman accounts of the astonishing magnificence that reigned in the court of Cleopatra, we may be convinced, that the fource of the vast treasures of that dynasty was not dried up; for, in truth, that fource was the commerce with India, instituted by the first Ptolemies, and preserved sacred and inviolable by the last; a commerce, of the magnitude of which some judgment may be formed from this circumstance, that, in the time of Augustus Cæsar, the taxes paid to the Roman government by Alexandria alone amounted, according to the lowest calculation by which Dr. Arbuthnot could estimate that amount, to one million fix hundred twenty-seven thousand five hundred pounds.* The particular instance of the fplendor and profusion in which Cleopatra lived is to be found in the same Athenaus, from whom I have extracted the long description above, and it proves that the gold and filver plate enumerated in it still remained in great abundance in the palace of Alexandria; for, having invited Anthony to a banquet at

which the vast number of gold cups. So with iewels, excited his admiration and aftonishment, that queen immediately presented him with the whole affortment made use of at the entertainment, and ordered her attendants to carry them all to his house. The succeeding. day he was again invited to a royal banquet. and requested to bring with him all the chief officers of his army; and, when that banquet was over, every guest was presented with the gold cup out of which he had drunk.* Nav. her extravagance was carried to such an extreme, that, having in her ears two of the finest and largest pearls ever seen, each supposed to be worth above eighty thousand pounds of our money, she dissolved one of them in vinegar, and drank it off; and was going to disfolve the other in the same manner that Anthony might pledge her in a draught of fimilar cost, but was prevented by the interference of the company.+ It is probable that the famous pearl with which Julius Cæfar presented Servilia, the mother of Brutus, and worth, according to Arbuthnot.

^{*} Athenœus Deipnesophisk lib. iv. p. 147.

[†] Plinii, lib xxxiii. cap. 3.

£48,437 ros. sterling, came from the same quarter; for, Cæfar had been the prior favonrite of the voluntuous Cleopatra. After these well-attested facts, which were, in Pliny's time, commonly known at Rome, our author's affertion will probably more eafily obtain credit with the reader, that the regular annual revenue of Ptolemy Philadelphus amounted to fourteen thousand eight hundred talents in money, independent of the immense tribute paid in kind by many of the provinces of Egypt, whence money could not conveniently be drawn; and that, at his decease, were actually found in his treasury seven hundred and forty thousand talents, a sum amounting to one hundred and ninety millions sterling.*

Having taken this view of the riches and grandeur displayed in the capital of one of the dynasties founded after the decease of Alexander, we must now direct our survey to those of another, the Selucidæ, who, though denominated sovereigns of Syria, yet, in sact, possessed all the rich and extensive domains that

^{*} Athenœus, lib.v. p. 103, and Bernard on the Weights and Measures of the Ancients, p. 186.

formerly constituted the Persian empire: but Seleucus, the first of that dynasty, having built the superb city of Antioch, in Syria, fixed on that city, as did the fovereigns, his fuccessors, for the metropolis of his empire. There can be no doubt, that, with the throne of Persia, a very considerable portion of its ancient riches was assigned to Seleucus, as well to maintain its splendor as to defray the expenses of a government that stretched in a wast line from the shores of the Mediterranean to the river Indus. It should also be remembered, that, in this partition of the empire of Alexander, his Indian conquests fell to the lot of Seleucus, and though he bartered away those conquests to Sandrocottus, by the mediation of Megasthenes, his ambassador at Patna, then the capital of India, we may rest assured, that, from that quarter, by commerce or otherwise, no small quantity of treafure poured into the provinces adjoining its western confines, which must ultimately find its way to the distant capital. Engaged, however, in almost incessant wars, and, when peace arrived, resolutely pursuing, like Ptolemy, the wife projects of Alexander in erecting cities, and encouraging that extensive L 3 commerce

commerce for which Antioch was at once for commodiously fituated and so widely famed. that great prince hoarded not up useless treafures, but expended with wisdom what he received in abundance. His fuccessors on the threne of Syria by no means acted with his wisdom or policy, and, amidst their other infanities, violated the harmony that had for many years subsisted between the families of the two most renowned generals of the school of Alexander. This rash conduct occasioned the descent of Ptolemy Euergetes, who, in the reign of Antiochus Theos, with a vast army, laid waste and plundered the richest provinces of the Syrian empire, carrying back with him into Egypt no less than forty thoufand talents of filver, an inestimable quantity of gold and filver veffels, and two thousand five hundred statues, of many of which Cambyfes had formerly pillaged Egypt, and, from returning which to its violated temples, the conqueror obtained, as before-intimated, from its grateful inhabitants, the illustrious title of Benefactor.*

^{**} See Justin, lib. xxvii. cap. 1, and Hieron. on Dan. cap. 11, in which chapter this irruption is plainly, and almost in as many words, predicted.

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Still, however, amidst the desolations of war and the ravages of avarice, a fufficient quantity of treasure remained to the Seleucidæ for the exhibition, even in the late period of their declining power, and after Antiochus the Great had been despoiled by Scipio Africanus of that enormous aggregate of wealth. the influx of which was the fource at once of the grandeur and ruin of Rome, for the exhibition, I say, of a spectacle only inferior in magnificence and brilliancy to that of the first Ptolemy. We are indebted to Polybius for the description of this splendid procession which took place in the reign of Antiochus Epiphanes, at Daphne, near Antioch; the more fplendid on account of the numerous cavalry who helped to form it, and who, by the lustre and clangor of the peculiar armour worn by them, as well as the prancing and costly caparisons of the noble animal that bears them, never fail to throw an additional glory on this kind of exhibition.

An immense body of infantry, in the warlike habits of the respective nations of Asia Minor, Greece, and Rome, having for the most part crowns of gold on their heads, and bearing shields of silver, marched fore-

most in the presession. They were followed by a thousand youths mounted on Niczan horses, succeeded by three thousand others on horses, norindeed of the Niczan breed, but the finest which the other regions of Asia could produce, all adorned with gold trappings, and wearing gold crowns. A thousand of the king's friends and relations, arrayed in the most sumptuous dresses, followed next on horses still more splendidly caparisoned than the former: to these succeeded the body-guard of the kings of Syria; a band of four thoufand horsemen, clothed in purple robes interwoven with gold. This part of the procession was closed by a hundred and fortytwo chariots, richly painted and gilded, drawn some by fix and some by four horses abreast.

That part of the procession which related to religion was ushered in by eight hundred youths, in the flower and bloom of their age, bearing crowns of gold. These walked before the statues of the Syrian and Greek deities, borne aloft by men most magnificently attired; after whom immediately followed a thousand pages, each of whom carried a silver vessel, the least weighing a thousand drachmas. The king's own pages, amounting to six hundred in number.

number, came next, carrying vessels of gold; and, after them, two hundred virgins, bearing gold chalices, filled with scented waters, with which they liberally sprinkled the spectators. In the rear of the procession were borne eighty litters with pillared seet of massy gold, on which sate as many women, probably the wives of the sovereign, superbly decorated with gold and jewels; and, after them, sive hundred more, probably his concubines, with pillared seet of solid silver.

The sports and games commenced when the procession closed, and afterwards the banquet was served up on sisteen hundred tables, at which an innumerable company partook of the rarest delicacies in viands and wines which ransacked Asia and Europe could furnish. In the spacious banqueting-hall were placed sisteen vast basons of gold, which were filled with unguents of the most expensive kind for the use of the guests; and the king himself, with great affability, attended in person upon them, arrayed in his royal robes, and wearing the diadem of Syria.*

With respect to Lysimachus, the third great sharer of the empire of Alexander, after a

[.] Athenæus, lib. v. cap. 4, p. 194, 1954-

fong train of varied events, fortunate and disastrous, he himself was, at an advanced age, flain in a battle with Seleucus Nicator, who made himself master both of his dominions and treasures, which were immense, and deposited at Sardis. Cassander, also, the fourth who succeeded to Alexander's hereditary kingdom, was too deeply engaged in perpetual foreign contests with Antigonus, Demetrius, and other rivals, to allow of his giving any of those magnificent entertainments, by which an adequate idea may be formed of the wealthy spoils which he acquired; but a most ample and complete view of the wealth that flowed from plundered Asia into the treasury of Macedon may be obtained, by adverting to the prodigious treafure-of every description found in the palace of Perseus, by Paulus Æmilius, when, in the year 167 before Christ, he conquered that kingdom, and converted the illustrious country that gave birth to Philip and to Alexander into a province of the Roman empire. These treasures, which were displayed in a public triumph decreed Æmilius, amounted to fuch an immense sum in coined money and bullion, and fo glutted Rome with gold and

filver, that, in confequence of it, no taxes were levied upon the Roman people for the support of the republic till the confulship of Hirtius and Panfa, a period of one hundred and twenty years, notwithstanding it was all that time engaged in carrying on expensive wars in almost every quarter of the known world. While the reader is informed of this circumstance, how must his indignation be excited against that, in this instance, barbarous race of conquerors, for permitting the wretched father, after having been dragged in triumph through the streets of Rome, to perish by the pangs of famine in a common iail. That indeed was the fate of the father! But harder still the doom of his infant sons! the first of whom died (possibly of a broken heart) fome time before his miferable parent; while the other, though bearing the august name of Alexander, was denied the education and accomplishments suitable to his noble birth, and finally attempted to have his high fpirit broken, by being placed out, by this generous and grateful republic, to the degrading occupation of a joiner or turner.

The particulars of the splendid triumph decreed Æmilius, for his important conquest

Macedon, are minutely detailed by Plutarch, with an extract from which I shall close this extended account of the dispersion of the spoils obtained by the irruption of the Greeks into the Higher Asia.

The celebration of this triumph, the grandest that Rome ever witnessed, took up the space of three days; the first of which was wholly occupied by the procession of two hundred and fifty waggons, loaded with captives, and the beautiful productions of the most celebrated artists of Greece, paintings exquisitely finished, statues that seemed to fpeak, and all the other rare and fumptuous ornaments found in the palace of the Macedonian fovereign. On the fecond day were displayed the various kinds of arms worn by the Macedonians and the conquered Greeks. their allies, confisting of helmets, shields, coats of mail, javelins, and spears, the former mostly of brass, the latter of steel, all highly polished for the occasion, and glittering in the beams of the fun. Amidit thefe, the splendid accourrements of the renowned Macedonian phalanx, in a more particular manner, excited the interest and admiration of the Roman people, while they reflected on the viciffitudes

viciffitudes of war, that often obscure the glory of the proudest conquerors. The recorded feats of that once-invincible hand ruthed upon their memories, and the very clashing of their armour struck the gazing throng with awe and difmay. After this difplay. they were feathed with a spectacle which gave birth to very different sensations; it was part of the contents of the treasury of the subjugated kingdom, the filver currency of Macedon, borne by three thousand men, in large vales that held each the amount of three talents, and every one of which required four men to carry it. The number of the vales were feven hundred and fifty, and therefore the total fum amounted to two thousand two hundred and fifty talents, in coined filver only, while a far greater amount in bullion followed in the form of elegant vales, cornucopiæ, goblets, phials, and cups of all fizes, of which the distinguishing excellence was not so much that they were silver, but that they were the work of Greek artists, equally admirable for the sublimity of the defign and the beauty of the execution. The exhibition of the golden spoil was reserved for the last and most splendid day of the festival; and the order

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order of the march on that day was as follows:

It was ushered in with a full chorus of trumpets, founding notes not fuch, fays our author, as were generally heard on these public folemnities, sprightly and festive, but notes of the more martial and animating kind, fuch as rouze the foul of the young warrior, bring the blood into his glowing cheek, and drive him, in an agony of transport, on the terrified enemy. The band of trumpeters was followed by a hundred and twenty oxen, with gilded horns, and decorated with garlands for facrifice: these were led by a train of young men, adorned with fashes curiously wrought, and bearing the facrificial instruments, who were accompanied by children carrying pateras, fome of filver and fome of gold. After these came, as on the preceding day, three thousand soldiers, who carried the coined money in gold in seventy-seven vessels of three talents weight; which, estimating the amount according to the proportional' value which gold then bore to filver, which may fairly be stated as one to twelve, and would, probably, in that early period of the Roman empire, be under-rated at the decuple, the general rate of calculation.

calculation. Iwells the total to an enormous sum, such as Rome till then had been a stranger to. The bullion, or gold plate, was next displayed; and, first, was borne an enormous article of facred pomp weighing ten talents, called the confecrated phial, made of folid gold, and fet with precious stones. The drinking-vessels that bore the name of Antigonus. of Seleucus, and of Thericles, because either used by those heroes or devoted to their memory, and all the costly utenfils of gold that decorated the table and fide-board of the luxurious Perseus, confisting of dishes, vases, and goblets, to an immense amount, were next exhibited in long and brilliant fuccession. After these, came the chariot of the captive monarch, in which was feen his fumptuous armour, and on the top of which glittered his ravished diadem. The infant-children and their attendants followed, a spectacle that melted the most obdurate hearts; and last was feen the unfortunate king, arrayed in fables, and having the appearance of a man bereaved of his fenses, through the magnitude of his misfortunes and the severity of his sufferings. But all momentary impressions of compassion were chased away from the breasts of those barbarous

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barbarous victors, by the fplendid pageants that fucceeded, which consisted of four hundred crowns of gold, that had been presented to Æmilius by the cities of Greece and Asia Minor, as tokens of their submission to his arms, or veneration of his virtues. The magnificent triumphal car of that conqueror fucceeded, on which he sate exalted in a robe of purple interwoven with gold; his brows crowned with a chaplet of laurel, intermixed with gold leaves, holding in his hands a branch of that tree. The procession was closed by the whole of his numerous army, who marched after the chariot of their general, waving on high branches of laurel, and rending the air with songs of triumph and shouts of victory.*

This supply, as we have hinted, glutted for the present the avarice of Rome; but with her luxuries increased her necessities, and the thirst of plunder, not less than the love of glory, henceforth, stimulated her generals to those daring enterprizes which finally made Rome, in her turn, the mistress of the world. The wealth of ruined Carthage, and, in con-

^{*} Plotarch in Vita Æmilli.

sequence, the undisturbed possession of the Spanish mines swelled her treasury with exhaustless stores. The two Scipios, denominated from their conquests Asiaticus and Africanus, poured in upon them, in a full ifream, the accumulated treasures of those respective regions; the former, after the conquest of Antiochus, paid into that treasury bis millies, which Arbuthnot states to be in sterling money fixteen hundred thousand and odd pounds; * but this is a trifling fum compared with the vast mass of treasure brought in by Cæfar, who, Plutarch affures us, after his extensive conquests, added to her stock, at once, fixty-five thousand talents, above twelve millions and a half English.+

A still more magnificent idea may be formed of the treasure annually drawn by Rome from her Eastern conquests, from what we read in Plutarch, that Anthony made Asia pay, at once, ten years tribute, amounting to twenty myriads of talents, or £38,750,000; the tenth of which is £3,875,000, and therefore gives us the exact tribute for one year.

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^{*} Aibuthnot on the Revenues of Rome, p. 191.

⁺ Plutarch in Vita Cæs.

The effect of the introduction of so much wealth into the capital, was an unbounded licentiousness in its inhabitants; who, in their magnificent entertainments and sumptuous mode of living, far furpassed the princes of Asia itself; for, we soon after find them fleeping on beds of gold and ivory, quaffing the rich wines of Chios and Falernuus out of gold and filver goblets, and riding in carriages shining all over with those bright and precious metals. To supply this unlimited extravagance, the governors of these provinces, whence they were principally obtained, as we learn from Cicero against Verres, committed the most unheardof extortions; while the most shameless corruption pervaded every department of the state, and the most infamous crimes polluted the whole body of the citizens. Indeed, how was it possible for the stream to be pure when the fountain itself was so deeply contaminated? When we find a Vitellius confuming between seven and eight millions a year on entertainments, and a Caligula expending above eighty thousand pounds sterling on a supper, we cannot wonder at the tragedian Clodius Æsopus lavishing on one luxurious

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luxurious dish 600 sestertia, £4,842 101.* or the young spendthrift, his son, treating each of his guests, after dinner, with a fuperb cordial, in which a costly pearl had been dissolved.+ The wealth of Crassus was proverbially great, and amounted to £1,614,582 6s. 8d.; but far greater was that of Pallas, the freed man of Claudius, for it was valued at £2,421,875; but both were exceeded by that of Lentulus, the augurwho was worth quater millies, or £3,220,166 125. 4d. Even poets and philosophers, in those golden days, amassed vast fortunes; for Seneca, in four years, acquired ter millies, £2,421,875; and, according to Servius, in the life of Virgil, that poet was worth centies H. S. or £80,729 3s. 4d. This sum, however, though great for a poet, was not thought sufficient to support existence by a pampered Roman fenator, fince the famous Apicius, after spending in culinary delicacies millies H. S. or £807,291 135.4d. and squandering, besides, the amount of immense grants and pensions, on casting up his accounts, finding he had only this exact fum remain-

^{*} Pliny, lib. v. cap. 60. + Ibid. lib. xxxv, cap. 12.

ing, poisoned himself, that he might not perish by the severer pangs of famine.

In their dress and furniture they were equally expensive; for Lollia Paulina, the great beauty of Rome in the time of Caligula, and on that account compulfively advanced to his bed, when full-drest, constantly wore jewels of the value of £322,016 13s. 4d. and the price for rich Babylonian triclinaria, coverlids, or carpets for their dining-beds, was £6,458 6s. 8d. Nor could their houses themselves be of mean fabric or decoration: fince that of Crassus was valued at fexagies, H. S. or £48,437 10s. while that of · Clodius cost centies et quadragies octies, or £119,479 5s. 4d.* Those houses were externally cased with marble, and had marble pillars to support the lofty ceilings; they were internally decorated with rich tapestry; with costly hangings of Tyrian purple; with urns and statues exquisitely sculptured and polished, and paintings of the most beautiful defign and brilliant colours; fountains of variegated marble played in their conacula, or great banquetting-rooms, cooling the air

^{*} Phay, lib. xxxvi. cap. 15.

and refreshing the guests, who dined off gold plate, ferved up on tables overlaid with filver. and reclined on fofas sustained by legs of ivory, filver, and fometimes even gold. They were also uncommonly splendid in the article of lamps, which were often fabricated of the most precious materials, and in which they burned the most costly and fragrant oils. The immense wealth that flowed by so many various channels into Rome was not all confumed in that city: great quantities were carried away into remote provinces by the numerous and fuccessive governors, and other men of confular and prætorian dignity, who finally fettled there, with their families, in voluntary or compelled exile. A very confiderable portion, too, was, in the infancy of the republic, transmitted to support and pay the numerous armies constantly stationed in Gaul, Germany, Britain, and other countries, where gold had not before abounded; still, however, by far the greater part was swallowed up in the deep vortex of Rome itself; and it is on record, that Tiberius left in the public treasury vicies septies millies, £21,796,875 3s. 4d.* The emperor Cali-*

^{*} Plutarch, in Vita Tiberii.

gula, his successor, delighted in rolling himfelf about, in all the infatiable lust and pride of avarice, in immense quantities of gold coin, spread abroad on the spacious floor of his palace. Yet was this infane cupidity presently succeeded by as wild extravagance, in throwing down money by handfuls, from a high tower, among the scrambling populace, and this continued for many days together, as well as at entertainments; wherein every article, not only the dishes, but the viands also, though bearing the form of meats, were of folid gold; the fictitious meats and golden dishes being afterwards distributed among the guests.* Nor was it only for human beings that he provided this fpecies of golden banquet; his favourite horse, whom he denominated Incitatus, must also share the sumptuous repast. The stable of that animal was formed of fine marble: his manger was of ivory; he wore a collar of rich pearls round his neck, and his caparifons were of Tyrian purple. Thus fplendidly accommodated, it feems but confishent that this prince of a horse should be regaled with

^{*} Snetonius in Caligula, cap. 29.

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equal magnificence; he, therefore, was fed with gilded oats, and drank the most costly wines out of golden chalices. In these and similar absurdities, this frantic tyrant, this alternate miser and prodigal, in the two last years only of his short reign, is reported to have squandered away eighteen millions of the public money.

However prodigious were the fums expended by the emperors of Rome, they were soon reinstated in the treasury by their absolute power and boundless rapacity; and the reign of Claudius exhibits an instance of three persons, his freed men and chief ministers, Narciffus, Pallas, and Calistus, who are faid to have amaffed more wealth than Crosfus and all the kings of Persia and of the empire, and to have been, in their delegated government, equally rapacious and profuse; keeping their weak and timid fovereign in the chains of dependence and poverty. But whatever fums avarice might have hoarded, or extortion obtained, were diffipated by that monster in human shape, Nero, in the gratification of his unbounded lusts, and in the erection of that stupendous structure, called his Golden Palace, from the vast profusion of that metal with M 4

with which it was adorned; the roof, the walls, the galleries, the faloons, all glittering with gold, ivory, and precious stones. may form some judgment of the immense fum confumed in the building this palace from what we read in Suetonius, viz. that Nero not having finished it, the first order which Otho, when he became emperor, figned was for quingenties, H. S. or fifty millions of festerces, to complete it; which, reduced to pounds sterling, amount to £,403,645 1(s. 8d.4 The ehormous fums spent by the imperial glutton Vitellius on his fumptuous banquets, repeated four times a day, have been already specified, and apparently justify the strong affertion of Josephus, that, had he lived much longer, the revenues of the whole Roman empire would scarcely have been sufficient to furnish his luxurious table.

After exhibiting to the reader this faithful picture of the great wealth and prodigality of the Roman people under the early Cæfars, the conquerors of ravaged Asia, there is no occasion for our extending the view farther, or enumerating all the unbounded extrava-

gance of their successors. During the ambitious contests that gradually weakened, then divided, and finally subverted, that empire, the precarious state of all property, but particularly that species of it which consisted in gold and filver, coined or in bullion, every where fought for with avidity by the different usurpers, to pay the armies which they respectively brought into the field, occafioned an immense quantity of treasure to be buried all over Italy under-ground in vaults and caverns, in gardens, in fields, and under the floors and walls of their houses. The jealous possessor, forcibly hurried away to the field of battle, expired on that field, and the important fecret, in what obscure spot it was concealed, perished with him. Nor was it only in Italy that they were thus buried; the diftant provinces felt, through all their limits, the convulsion of the capital; and the inhabitants, harassed by ephemeral tyrants. committed their treasures to the too faithful bosom of the concealing earth. These have occasionally been dug up, through every succeeding century, in Gaul, Germany, and Spain, sometimes in very large quantities; and have well rewarded the toil at the fortunate

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tunate husbandman, and the zeal of the exploring antiquary. A treasure of no less than eighty thousand large gold coin or medals, each of the value of fix Roman crowns, was, according to Mountfaucon,* in 1714, discovered near Modena in Italy. They feemed all to have been struck in very early periods of the Roman grandeur, and the least antique of them were those of Julius Cæfar and the Triumvirate. Particular reafons induced M. Fontanini, the correspondent of Mountfaucon, who transmitted him an account of the discovery, to suppose these medals belonged to the military chest of the army collected by Lucius Antonius and Fulvia against Augustus. The treasures of Roman money also dug up in France, Germany, and Spain, during the middle centuries, were amazingly great; and, during the failure of the ancient fources of wealth, in part supplied the quantity necessary for carrying on the commercial intercourse of Europe.

Before we conclude this Differtation on the treasures of the ancient world, it is necessary

^{*} See the applement to Mountfaucon's Antiquities, book v. p. 329.

we should again advert to those Asiatic regions whence we commenced our furvey, and where, especially in India, the same pernicious practice of burying money in vast quantities has immemorially prevailed. And here we may remark, that, although in the vast fums of coined money at different periods dug up in Europe, the overflowing wealth of the Roman capital may, in some degree, be accounted for; yet, as immense treasures must have still remained dispersed over the extensive provinces of Asia, which never found its way into Europe, hoarded in the coffers of the miser, or concealed in the vaults of the palaces of the kings and fatraps of the East, far more remains still unaccounted for, or how comes it that fuch a flender stock of Afiatic coins is to be found in the cabinets of those affluent curiofi, who have spared neither toil nor expense to search for and procure them? Of Darics and Philippi there are very few indeed: of the immense heaps of money coined by the Ptolemies, and the other Greek fovereigns who fucceeded Alexander, a very moderate proportion also has reached posterity. India, thou avaricious glutton, whose rapacious jaws, from the first of time, have **fwallowed** fwallowed the gold and filver of the world, it is thou that hast caused this dearth: confess thy treachery to the cause of medallic science; they have gone to swell the magnificence of thy pagodas, and, without the least regard to the grandeur of the design, the majesty of the character impressed, or the unequalled beauty of the execution, thy refiners have melted them down in their crucibles to an unanimated mass, of value only proportioned to its weight.

On the plains of India, also, not less than on those of Europe, are supposed to lie buried treasures, principally in bullion, to an incalculable amount, deposited there during the ravages and oppression of successive conquerors, through at least eight centuries of anarchy and tumult; I mean, from the 7th century to the mild and peaceable reign of Akber. These are now and then, though rarely, discovered, and sometimes Greek coins, probably of high antiquity, as the Greeks of Caria and other maritime countries visited the coasts of the peninsula almost as early as the Phænicians themselves. Mr. Chambers, in his account of the ruins of Mavalipuram, written in 1784, acquaints us, that he was informed

informed by the Kauzy of Madras, that, some years previous to that period, a RYOT, or husbandman, in ploughing his ground, had found a pot of gold and filver coins, with characters on them which no one in those parts, Hindoo or Mahommedan, (therefore, plainly, neither Arabic nor Sanscreet,) was able to decipher. That the Kauzy, however. at the same time informed him, all fearch for them, then, would be in vain, for they had doubtless long ago been devoted to the crucible, as, in their original form, no one there thought them of any value.* The extensive plains of Tartary are, also, supposed to contain inexhaustible stores of treasure buried by the Arab and Tartar hordes, who range over those wild folitudes, during either their ancient implacable contests with each other, or the invasion of the Parthians and other hostile nations combined against them.

With respect to India, independent of the domestic statues, which, it has already been observed, it was customary with the ancient Indians to form out of the precious metals in sussion, we are well assured that all

^{*} Afiatic Researches, vol. 1. p 158. Calcutta, quarto edition.

the great pagodas of India had complete fets, amounting to an immense number, of the avatars and deities, which they would probably deem degraded by any baser metals or meaner substance than gold and silver, except in those instances in which their mythological superstition ordained that the deity fabricated should be of stone, as in the instance of Jaggernaut, which Captain Hamilton represents as a pyramidal black stone, (in the fame manner as the ancient Arabians fabricated their deity, though of a square figure, to mark his perfection, while the darkness of the stone indicated the obscurity of his nature.) with, however, the richest jewels of Golconda for eyes; and, in that of Veeshnu, in the great bason of Catmandu, in Nepal, sculptured in a recumbent posture, and of blue marble, to represent the primordial spirit, at the commencement of time, floating on the carulean surface of the Chaotic In the Ayeen Akbery there is a very curious chapter on the great skill of the Indian artists in working in gold and jewellery, in which it is expressly affirmed, that the AVATARS are frequently made of gold and filver

filver; * and, fince, if completely represented, the figures must be numerous, great quantity of those metals must have been consumed in their fabrication.

The custom of burying every thing most valuable at the approach of an invader is for ancient and so general in Hindostan, that there can be no doubt of many of these costly appendages of the ancient rich pagodas having been thus disposed of. I have, myself, seen numerous fragments of these avatars and deities, that have been dug up in fields and gardens, cast in bronze and other metals; and, if they buried these of inferior metals, they undoubtedly would, with still more anxious care, those of the more precious kind. It has also been an immemorial practice in India to throw gold, precious stones, and other sumptuous articles, by way of offerings, into the Ganges, Jumna, and other great rivers, nearly all of which are regarded in a facred light by that superstitious people; and, therefore, the fandy beds of those rivers may be justly considered as mines of treasure, and reckoned among the richest that Afia affords.

^{*} Ayeen Akbery, vol. i. p 242.

I have, in a preceding page, enumerated fome of the more splendid oblations of their ancient rajahs, to purchase atonement for crimes committed against heaven, and, among: other articles, their golden horses, golden cows, trees and vines of gold, ploughs of gold, chariots drawn by horses and elephants all of gold. It was added, that the value of these offerings varied from 10 to 6660 tolahs: that the tolah is a weight peculiarly appropriated, throughout the Mogul empire, to those precious commodities; a hundred tolahs amounting to thirm eight ounces; and that, from the vast amount of those oblations, evident proof feemed to arise that India was formerly much more abundant in gold than in periods less recent. I shall now, in addition to that account, subjoin a very curious chapter from the Ayeen Akbery, relative to the exquisite perfection in gold and jewellery work, to which their artists had, in Akber's time, arrived; not only because it cannot fail of impressing on the mind of the reader the object of this Differtation, which is the profusion of gold in India, but because the enumeration of the ornaments of gold and jewels, worn by the inhabitants of India, will afford them

them a lively specimen of their taste in dress, and their oftentatious mode of decorating their tawny persons.

ORNAMENTS OF GOLD AND JEWELS ANCI-ENTLY WORN BY INDIAN WOMEN OF RANK, EXTRACTED FROM THE AYEEN AKBERY.

" SEISPHOOL is a flower resembling the marigold, made of gold, and worn on the head. Mang, an ornament worn upon the parting of the hair of the head. Gowtbilladudir is an ornament for the forehead, confifting of five short points and a long one. Sebra, seven strings of pearl, or more, interspersed with natural flowers: this is fastened to the forehead, and covers the face. It is chiefly worn at marriages, and by a mother on the birth of a fon. Teeka, a jewel in the shape of a crescent, which is worn upon the forehead. Bindelee, a round piece of gold, fmaller than a mohur, which is worn upon the forehead. Khuntebla, an ear-ring of a conical form. Kurrenphool, an ear-ring refembling a rose. Deerbutcha, another kind of Vol. VII. N earear-ring. Peepulputty, small crescents, nine, or more, of which are worn in each ear. Ballee Chumpakullee, a small golden rose, worn on the thick part of the ear. Mowrbbenwir, an ear-ring in the shape of a peacock. Beyser, a kind of nose-jewel. Phoolee resembles a rosebud with a stalk, and is worn in the nose. Lowng is a golden clove, which is worn in the nofe. Nut, b, a gold ring, upon which are a ruby and two pearls, or other jewels: it is worn in the nose. Goolooband, a necklace, confisting of five or seven strings of very small gold roses. Har, a string of pearls and flowers hanging from the neck. Hans, a collar. Kungun, a bracelet. Gujreb, a bracelet of pearls and gold. Yewee, five gold barleycorns ftrung upon filk, and worn round the wrists. Choor, another kind of bracelet. Bahoo, a small kind of bracelet. Chooreen, another very fmall kind of bracelet; feven of which are worn round each wrist. Bazoobund, ornaments for the arms. Taar, a hollow ring, worn upon the arms. Ungoothee, rings. which are of various forms. Chooding bunta, gold bells, strung upon filver wire, and worn round the waist. Kutmekbla, a gold belt. Jeeber, three gold rings for each ancle. Choora,

two half-circles, made of gold, which join round the leg. Doondnbee, like the choora, but ornamented with engravings. Muslowree, differs from the doondnbee in nothing but the engraving. Payil, rings worn round the ancles. Ghoongroo, little gold bells strung upon silk, which are worn about the ancles, between the jeeber and payil. Bank, ornaments for the top of the foot, and which are either square or triangular. Beetcheva, toe-rings, half a golden ball. Unwut is a ring worn upon the great-toe.

"The jewels above-described are made either plain, or ornamented with gems; and are of various fashions. The Hindoo goldsmiths are such exquisite workmen, that sometimes they charge a gold mohur for working a tolah of gold."*

Their peculiar mode, also, of setting in gold, deserves the attention of the European artist, and therefore is inserted.

The jewellers of other countries fasten jewels in the settings with lack; but those of Hindostan make use of a kind of gold which they called Kurden, and which is so malleable,

that

^{*} See Ayeen Akbery, vol. i. p. 262.

that the story of Parvez's gold, which he could mould with his hand like wax, feems credible. It is prepared by stratifying very thin plates of gold with field cow-dung, and a particular kind of falt, called fambbir; when it is put into a fire of cow-dung, which is fuffered to expire. And these operations are repeated till the gold is fufficiently refined. When it is thought to be quite pure, it is put into an earthen vessel, with lime-juice, or some other acid, and placed in the fire. After this, it is wound round a stick, and, if it is not fufficiently ductile, the stratifications are repeated. The goldsmith first puts a little lack into the focket, and over it a piece of this Kurden gold. Then he presses down the stone upon the gold, and fastens the ends over the fides; which fixes the stone so fast, that there is no danger of its falling out."*

My principal concern, in these Antiquities, being with Hindostan, before I return to the consideration of the state of Europe, and its pecuniary wealth in those times, I shall historically notice the successive plunderers of that empire, after Mahmud, of Gazna. That scourge of India died in the

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year 1028, of our æra; Gengis appeared first as a warrior on the plains of Afia towards the commencement of the 12th century: but his conquest of the brave Gelaleddin, on the banks of the Indus, neither fecured him the fovereignty of India, nor put him in poffeffion of that prince's immense treasures; for, Gelaleddin configned those treasures to the Indus, whence a confiderable portion was fished up by the avaricious victor. fources of abundant wealth, however, were by no means wanting to a despotic prince. great in council and vigorous in arms, whose empire is described, by M. Petit de la Croix, to have been greater than that of Alexander or Augustus, extending, from east to west, more than eighteen hundred leagues, and more than a thousand from north to south * Great indeed that wealth must have been, fince we find this monarch making public banquets that lasted an entire month; + and the officers of his army riding on faddles of gold, and glittering with precious stones. But the luxury of the Tartars had not yet reached its zenitir; it was exemplified in its full

^{*} History of Gengie-Knim, p 2 | Fibid. p. 353.

N 3 | fplendour

fplendour by Timur, his descendant, in the beginning of the fifteenth century, at a feast which he made on a delightful plain called the treasury of roses, at which, says an author not given to exaggerated relation, was exhibited fuch a display of gold and jewels, that, in comparison of them, the riches of Xerxes and Darius were trifling.* That author here alludes to the following curious account, by Sheriffeddin, of the sumptuous feast celebrated by Timur, at Canaghal, on account of the marriage of his fons; an account which, because it is exceedingly curious, and gives us a lively idea of the Tartar manners, I shall present the reader with unabridged. It took place on the 17th of October, 1404.

"The palace of Canaghal, a word which means the treasury of roses, and all the neighbouring places, were adorned with the greatest magnificence; so that this autumn-season rendered, in a manner, even the spring jealous. The tents were tied with silken cords, in which were abundance of carpets wrought with gold: the curtains were of velvet of

^{* *} Sir William Jones's Short History of Asia, prefixed to Nadir Shah, p. 68.

Chuchter; and the cielings of ebony and ivory exquisitely engraved. The emperor's apartment confifted of four great inclosures. which are called Seraperd, built on very regular plans. His Khergiah, or imperial pavilion, made two hundred tents, gilt, and adorned with precious stones. Each tent had twelve columns of filver, inlaid with gold. The outfide was scarlet, and seven other colours: and the infide fatin of all colours. The upholsterers, of whom there was a great number, had employed a whole week in erecting and furnishing this magnificent apartment. The mirzas and emirs had also each a seraperd, a barghiah, tents, and a great pavilion named kherghiah.* The columns of the tents were of maily filver, and the floor was covered with the richest carpets.

- "The governors of the provinces, the generals of the army, the lords and principal commanders of the empire, assembled in this place, and pitched their tents in good order.
- "The emperor was not the only person who partook of the joys and diversions; for both

N 4 high

^{*} Seraperd is an inclosure; barghiah a great hall of audience; and kerghiah a great pavilion. The two last are inclosed in the teraperd.

high and low had their share. The most skilful artists prepared some master-piece of their art, as trophies and cabinets of slowers to represent triumphs, which were adorned with garlands made up with perfect symmetry. There were, in the jewellers shops, necklaces of pearls and precious stones, especially of grenadin and balass rubies, with an infinite number of pieces of rock-chrystal, coral, and agate, and several rings, bracelets, and ear-rings; all which rendered Canaghal a mine of gold and precious stones, instead of a mine of flowers, which its name implies.

"The emperor ordered the astrologers to choose a happy moment for an affair of such importance; which being done, the first officer of the household drew the curtain of the gate. The cadis, cherifs, imams, and doctors, of the empire, met the emperor; and, having agreed on the articles of marriage, the great doctor, Cheik Chamseddin Mehemed Jazari, was chosen to read them to the assembly. The grand cadi of Samarcand received the mutual consent of the parties, which he registered; and then, according to the maxims of the Hanasyan law,

he joined the princes and princesses together in marriage, on whom every one sprinkled gold and precious stones.

"The emperor, being seated on his throne, ordered a banquet of the utmost magnisicence to be served up to the brides, and the other ladies of the court, by the most beautiful young women of his seraglio, who wore crowns composed of flowers. The princes of the blood, emirs, nevians, cherifs, and so-reign ambassadors, took their places according to their rank and dignity, as well as the emirs of Tomans and Hezares. These lords were seated under a canopy of twelve columns, distant from the nuptial-hall about a horse's course.

"The yesaouls, or exempts, whom the Turks call chaoux, were there, backwards and forwards, to perform the function of their posts, mounted, in a magnificent manner, upon horses of great price, with saddles of gold, adorned with precious stones, and habited in vests of gold brocade, with an air of authority* and command.

^{*} The yeshoul, carry in their hands, as a fign of their office, a five wand.

"On another fide there were elephants of a prodigious fize, on whose backs were placed a kind of thrones, with abundance of ornaments. Under the canopy with twelve columns were placed earthen urns, with strings of precious stones tied about them, filled with gold and filver posts; and on the tops were cups of gold, agate, and rock-chrystal, adorned with pearls, and feveral forts of jewels, all which were presented on falvers of gold and filver. The drink was cammez,* oxymel, hippocras, brandy, wines, firma, and other liquors. It is reported that the wood of feveral large forests was cut down to dress the victuals at this banquet. The head-steward, with his under-officers, constantly attended to give all necessary orders as to the serving up of the dishes, before which an officer always walked. There were tables furnished in different places throughout the whole plain, and flaggons of wine fet near the tables, with an infinite number of baskets full of fruit. Befides the flaggons for the emperor's use, and for the lords of the court, there were feveral jars ranged in all the plain for the people's

^{*} Cammez is a drink used among the Tartars.

drinking; and, that the joy might be univerfal, the emperor ordered a proclamation should
be published that all the people might enjoy
what pleasures they pleased, and no one take
cognizance of them. The crier read the proclamation as follows: 'This is the time of
feasting, pleasure, and rejoicing. Let no
one complain of, or reprimand, another.
Let not the rich encroach upon the poor,
or the powerful upon the weak. Let none
ask another, Why have you done thus?'
After this declaration every one gave himself
up to those pleasures he was most fond of during the feast; and whatever was done passed
unobserved.

"At length the feast was finished; after which, according to custom, a vast quantity of curious moveable goods was laid upon mules and camels for the new-married princes; among which were all forts of rich habits, crowns, and belts set with precious stones. The mules had coverings of satin embroidered with gold: their little bells were gold, as well as shose belonging to the camels; and both were handsomely adorned. This pompous equipage passed before the people, who were struck with admiration. The bride-grooms, with

with their brides, were clothed nine times in different habits, with crowns and belts fet with precious stones; and, each time they changed their clothes, they paid their respects as usual; while gold and precious stones, pearls, rubies, and balass-rubies, were sprinkled upon them in great numbers, with which the ground was covered, and which became the profit of the domestics.

"The following night there were every where illuminations with lanterns, torches, and lamps; and the new-married princes entered the nuptial-chamber. The next day Timur did them the honour to pay them a vifit at their own apartments, being accompanied by the empresses, and great emirs, and cherifs, of his court. The rejoicings were so great throughout the whole empire, that, from Canaghal, as far as Tous, in Corassana, there was not one place where the sound of drums and trumpets was not heard."*

There can be no doubt but that the greatest part of the wealth thus displayed was obtained in the plunder of India: and, in the account of Timur's capture of Delhi, in the first vo-

^{*} History of Timur-Bec, vol. ii. p. 359.

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lume, I have already enumerated a portion of the treasures which he found in that city, of which, I observed, some judgment might be formed from the immense quantities of precious stones, pearls, rubies, diamonds, gold and filver veffels, money, and bullion, carried away by the army; that even the Indian women and girls were adorned with a profufion of precious stones, and had bracelets and rings of gold and jewels, not only on their hands and feet, but also on their toes; and that of those precious ornaments every individual had fecured fo ample a store, that they refused the incumbrance of more, so that vast heaps of various plunder of inestimable value were left behind.

Here, then, we see collected into one central spot all the remaining mass of Asiatic wealth which either slowed not into the hands of the Romans, or was transported back by commerce, and opulent governors, from that capital. In about a century from this period America was discovered, and opened to the daring warrior and adventurous merchant new and invaluable sources of wealth; which, being exported by various channels to the Eastern world, recruited the treasures of Persia

and India, exhausted by the repeated ravages of Mohammedan conquerors. But fince that important discovery may be looked upon as the commencement of a new æra in riches and in commerce, the incidents arising from it do not properly come under our survey in a Differtation on the wealth of the ancient world. Till that discovery took place, the great marts of Europe possessed but a very scanty portion of gold and filver; for, the jealous avarice and gloomy bigotry of the Mohammedans, in whose hands now centred the whole trade of Asia, had combined to shut out the European merchants from the rich port of Alexandria, and other maritime cities of the East. During this interval, however, a very feafonable fupply of gold and filver bullion was fortunately met with in the mines of Germany, first discovered and wrought, according to Dr. Brown, about the year of Christ 700; traditions on the spot having fixed the working of that of CHREMNITZ, the principal and most productive, several English miles in length, to that period. The rigid maxims that urged the Mahommedan despots of the East to exclude from all participation of the Indian commerce the Christian traders

being afterwards somewhat mitigated, Europe received, through the medium of the Genoese and the Venetians, an additional influx of the precious metals produced on the coast of Africa and the regions bordering on the Aurea Chersonesus. Still, however, in the great trading-cities of Europe, gold and filver were comparatively scarce, and continued so, till a series of success, as unexpected as unmerited, opened to the Spaniards the vast storehouses of these metals in America, whence the golden deluge has never fince ceased to flow into their ports; and, being thence diffused through the courts and palaces of Europe, has given them the appearance of Afiatic splendour, and fixed on the heads of her august sovereigns diadems more brilliant than those that anciently sparkled on the brow of the great Shah of Persia or the magnificent Mogul of India.

End of the Dissertation on the immense Treasures in Bullion and coined Money of the ancient Sovereigns of Asia.

Α

DISSERTATION

ON THE

LITERATURE

OF THE

ANCIENT INDIANS.

SANI, OR THE PLANET SATURN,



enciraled with A RING, formed of SERPENTS.
To the Real Souther Demandray, A.M. the above flate, Mustrative of his favourite Neither, in memory of early Friendship, is inscribed by J. H.

DISSERTATION, &c.

CHAPTER I.

General Account of the SANSCREET LANGUAGE. Grammar, and Alphabet. - The bigh Antiquity and wide Diffusion of that Language over the Eastern Region of Asia. - An Investigation of the Sciences of the Brabmins, not bitherto discussed in the Indian Antiquities. - ASTRONOMY. necessarily ext tivated, in the remotest Periods, by a Race devoted to Agriculture, and immemorially addicted to the Samon Superstition. - A retinferine drivey of the great Outlines of this science, as anciently known in India. - COMETRY proved to have flourished among them, from its Connection with the former Science in its advanced State,

State, as well as from their massy Style of Architecture, &c. &c. - MEDICINE, -the Devotion of the ancient Indians to BOTA-NICAL Researches, induced an intimate Acquaintance with that Branch of the Science. - The Necessity of providing Remedies against the Bites of Serpents, and other noxious Reptiles abounding in India, promoted their farther Progress in it. - The Sanscreet Treatises on Medicine consist principally of Receipts preserved from Age to Age, and carefully banded down from Father to Son. -The ancient Indians proved to have been not ignorant of Anatomical Diffections, though regarded with Abborrence by the modern Brahmins. - Low State of the Science among the latter. — CHEMISTRY, — a Knowledge of this Science, effentially important in various Branches of Indian Manufactures; proved in their AGNEE-ASTRA, er Fire-Weapons used in Battle; as well as other warlike Instruments employed by a People whose second Tribe is entirely military.

THE doctrine that afferts the derivation of all the nations of the earth, however widely and variously dispersed, from one grand parent

parent stock, according to the hypothesis adopted throughout these volumes, - a doctrine equally conforant to the voice of Scripture and the annals of India, -implies that, in the remote period previous to the difperfion of the human race, they used, in common, one primæval language, radically the fame, and, at the confusion of Babel, only varied in the mode of its pronunciation; in other words, that it was a confusion of the lip, and not an alteration of language, which took place on that catastrophe; a labial failure, as Mr. Bryant judiciously expresses himself,* which, in effect, proved sufficient to frustrate their impious design in rearing that mighty fabric. The vestiges of this primordial language, in every dialect of the ancient world, are clearly traced in the elaborate work of M. Court de Gebeline; and, though Sir William Jones, in one of his later differtations,+ feems to doubt the existence of the remains of this universal language, yet, in various preceding affays, that great linguist unequi-

vocally

^{*} See Analysis of Ancient Mythology, vol. iii. p. 30.

⁺ On the Origin of the Families of Nations, in the third volume of Afiatic Refearches.

vocally affented to the prevalence of one primary tongue throughout the early branches of the Noachic family, referring even the fublime invention of letters, and the origin of astronomy itself, in which science it appears extremely probable the celestial afterisms were first designated by the letters of the althabet, to the children of Ham in Chaldæa: and his discussion on this important subject, though it somewhat clashes with the subsequent affertion alluded to above, is given in these words. "The Sanscreet language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to each of them a stronger affinity, both in the roots of verbs and in the forms of grammar. than could possibly have been produced by accident; fo strong indeed, that no philologer could examine them all three without believing them to have forung from some common source, which, perhaps, no longer exists. There is a similar reason, though not quite so forcible, for supposing that both the Gothic and Celtic, though blended with a very different idiom, had the same origin with

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with the Sanscreet; and the old Persian might be added to the same family.

"The characters, in which the languages of India were originally written, are called Nagari, from Nagar, a city, with the word Deva fometimes prefixed, because they are believed to have been taught by the Divinity. himself, who prescribed the artificial order of them in a voice from heaven. These letters, with no greater variation in their form, by the change of straight lines to curves, or conversely, than the Cusic alphabet has received in its way to India, are still adopted in more than twenty kingdoms and states, from the borders of Cashgar and Khoten to Rama's Bridge, and from the Seendhu to the river of Siam; nor can I help believing, although the polished and elegant Devanagari may not be so ancient as the monumental characters in the caverns of Jarafandha, that the fquare Chaldaic letters, in which most Hebrew books are copied, were originally the same, or derived from the same prototype, both with the Indian and Arabian characters: that the Phenician, from which the Greek and Roman alphabets were formed by various changes and inversions, had a fimilar origin, there can be

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little doubt; and the inscriptions at Canarah seem to be compounded of Nagari and Ethiopic letters, which bear a close relation to each other, both in the mode of writing from the left hand, and in the singular manner of connecting the vowels with the consonants."*

The idea of the Indians, as detailed above, is exactly conformable to that of Plato, and of many Christians, who suppose the first knowledge of letters to have been the refult of divine infpiration, or Deva Nagari. We may remark, too, that, according to the above decision, the Cuthic, or Chaldaic, alphabet is the basis of all others; and thus again does Indian literature, in a striking manner, corroborate the Hebrew records. the most ancient copies of which are written in such a simple unadorned character, as incontestably proves their high, if not unrivalled, antiquity; in other words, that they were written in the language spoken by the Noachidæ. Diodorus Siculus, in fact, actually ascribes the invention of letters to the Sy-

[·] Asiatic Researches, vol. i. p. 425.

rians;* that term being understood, in its more extended sense, as often used by the ancients, to include Chaldæa and Assyria, in particular by Pliny, who refers letters to the Assyrians; and the oldest Syrian and Phænician letters are allowed to have been the same. That is the peculiar character which Moses is thought to have used in writing the Pentateuch; and it is that in which the Samaritan, the oldest extant copy of it, is composed.

The Phænicians, afterwards emigrating under Cadmus, carried letters into Greece; and the striking resemblance, both in form, sound, and arrangement, of the latter, with the former, indubitably establishes their origin. But, if they were not sufficient of themselves to demonstrate the Oriental origin of letters, an irrestragable proof is derived from the circumstance of the Greeks having retained, with very little variation, the original names of the letters thus imported into their country from Phænicia. From Greece, the Pelasgic colonies carried the Cadmæan letters into Italy; evidenced also by the same resembling

[•] Diodorus Siculus, lib. v. p. 397.

circumstances of fabrication, arrangement, and found.

At what a remote æra, indeed, letters were used in Assyria may be deduced from the account fent to Aristotle, from Babylon, by Callisthenes, concerning the series of astronomical observations preserved by the priests in the temple of Belus,* and reaching back for a period of 1902 years from the time of its conquest by Alexander. 'Now Alexander's invalion of Babylon happened about the year, before Christ, 330, which makes the period, when those observations commenced, to have been little more than a century after the flood. They were written or engraved on bricks, burnt in the fun, which was probably the earliest rude tablet of the graphist, though afterwards he committed his thoughts to the more durable substance of marble, brass, and copper. Thus, according to Josephus, if any confidence can be placed in his report, the Pillars of Seth recorded the prediction of an inundated world; the stupendous sculptures, on what are called the written mountains of Arabia, are referred to ages of the

^{*} Porphyr. apud Simplicium in Aristot. de Cœlo, p. 123.

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most remote antiquity; the triumphs of Sesostris were blazoned, in every country which he conquered, on columns that feem to have been inscribed at once with alphabetic and hieroglyphic characters; and the Hebrew decalogue itself was engraved on two tables of stone. The Indians used all these methods of conveying their ideas to posterity. Inscribed pillars and engraved copperplates have been discovered in every quarter of the empire; but the tablet in most general request among them has ever been the dried leaf of the palm-tree, many of which are fastened together, in long slips, and compose those books in which the sublime productions of the Indian muse have been for so many ages preserved. Diodorus farther informs us, in proof of the early cultivation of Affyrian letters, that Semiramis caused infcriptions, in the Syriac character, to be cut deep on the mountains of Bagisthan, and what, if the account-can be depended on, is still more to our purpose, that, on her meditated expedition eastward, the received letters written to her from an ancient king of India.*

^{*} Diod. Sic. lib. ii. p. 127, 129.

To return from the confideration of the object inscribed to the letter defignated. - The general conformity of the most ancient Sanscreet character with the square Chaldaic letter, in which most Hebrew books are written, has been already noticed. Walton, in the Prolegomena to his Polyglott, has, in innumerable instances, remarked the striking fimilarity between the old Hebrew and Perfic dialect; and, in truth, Sir William Jones, in his Differtation on the Persians, has confirmed all that Walton advanced on the fubject, by avowing that the ancient Iranian, or Persian, and the Sanscreet languages are, in their original, the same; " that hundreds of Parsi nouns are pure Sanscreet, with no other change than such as may be observed in the numerous vernacular dialects of India: that very many Persian imperatives are the roots of Sanscreet verbs: and that even the moods and tenses of the Persian verb-substantive, which is the model of all the rest, are deducible from Sanscreet by an easy and clear analogy."* The prefident farther adds; towards the close of this differtation, that the

^{*} Asiatic Researches, vol. ii. p. 51.

language of the first Persian empire, which he proves to have been Cuthite, and the latter governed by Cuthite princes, of whom Belus was the head, and the history of all of whom was carried, with the colonies migrating eastward, to India, was the mother of the Sanscreet, and consequently of the Zend and Parfi, as well as of Greek, Latin, and Gothic; that the language of the Assyrians was the parent of Chaldaic and Pahlavi; and that the primary Tartarian language, also, had been current in the same empire.* This having been the case, and the fact being proved from an authority fo high and indisputable, can we wonder that the history of the ancient world, in the early post-diluvian ages, as detailed by Moses, should be so well known to the ancient Brahmins, who used, both in speaking and writing, the same language with the patriarchs, and in their facred books treasured up all the traditional dogmas and fublime theology of the Noachidæ. The allegorizing spirit of their descendants has, indeed, obscured its brightness and defiled its purity; but, tear off the mythologic veil,

^{*} Afiatic Researches, vol. ii. page 64.

and the Hebrew and Indian legislators are the

On attentively contemplating the characters and symbolic figures on the ruins of Istakar, or Persepolis, the president was enabled to fix with precision on the age of that massy structure; for, had it been erected while the Hindoo dynasty in question, called by him Mahabadian and Mahabelian, fate on the throne of Persia, it would undoubtedly have been decorated with the symbols of the Hindoo mythology, and with figures refembling those at Salsette and Elephanta; whereas those figures have reference folely to the Sabian superstition, or worship of the sun and planets. Confequently they must have been fabricated in a period after the migration of the Brahmins from Persia, and when its intricate mythology had been purged of its impurities by Zoroaster, who substituted in its flead the simple adoration of the solar orb and fire as the purest symbol of the Deity. The palace and temple of Istakar, therefore, cannot be older than about 500 years before Christ; and, with respect to the inscriptions engraved on them, he is not of opinion that they are in reality alphabetical letters, but a fecret and facerdotal

facerdotal character, which could only be deciphered by the priests themselves. Among those ruins, however, may be plainly traced a few of the square Chaldaic letters to which he had alluded before, as resembling the old Devanagari, before the latter were inclosed, as they are now seen in India, in angular frames.

The relation of the old Persian with the Indian language being thus clearly proved. and the characters at Canarah having been afferted, by the first linguist of any age, to be compounded of the Nagari and Ethiopic, he proceeds to detail his fentiments on the connection existing between the languages of two countries so remote as India and Ethiopia; he afferts, that the written Abyssinian language, which we call Ethiopic, is a dialect of old Chaldean, and fifter of Arabic and Hebrew, known with certainty to be fo, not only from the great multitude of identical words, but (what is a far stronger proof) from the fimilar grammatical arrangement of the feveral idioms. written, like all the Indian characters, from the left hand to the right, and the vowels are annexed, as in Devanagari,

gari, to the consonants; with which they form a syllabic system extremely clear and convenient, but disposed in a less artificial order than the system of letters now exhibited in the Sanscreet grammars; whence he conceived it may justly be inferred, that the order contrived by Panini or his disciples is comparatively modern; and he entertained no doubt, from a cursory examination of many old inscriptions on pillars and in caves, which had been sent to him from all parts of India, that the Nagari and Ethiopian letters had at first a similar form.

On this subject it is impossible to omit, though before partially cited, the additional evidence of Mr. Halhed, who, in the preface to his Grammar of the Hindostani Language, afferts the Sanscreet, or ancient language of India, generally spoken before the invasion of Alexander, to be a language of the most venerable and profound antiquity; the grand source as well as sacred repository of Indian literature, and the parent of almost every dialect, from the Persian Gulph to the China Sea. He is of opinion, that the Sanscreet was, in ancient periods, current not only over ALL INDIA, considered in its largest extent, but

over ALL THE ORIENTAL WORLD, and that traces of its original and general diffusion may still be discovered in almost every region of Afia. He was affonished to find " the fimilitude of Sanfcreet words with those of Persian and Arabic, and even of Latin and Greek: and that not in technical and metaphorical terms, which the mutuation of refined arts and improved manners might have occafionally introduced, but in the ground-work of language, in monofyllables, in the names of numbers, and the appellations of fuch things as would be first discriminated on the immediate dawn of civilization. The refemblance which may be observed in the characters on the medals and fignets of various districts of Asia, the light which they reciprocally reflect upon each other, and the general analogy which they all bear to the same grand prototype, afford another ample field for curiofity. The coins of Assam, Nepaul, Cashmeere, and many other kingdoms, are all stamped with Sanscreet characters, and mostly contain allusions to the old Sanscreet mythology. The same conformity I have observed on the impression of seals from Bootan and Thibet. A collateral inference may likewise VOL. VII. P be

be deduced from the peculiar arrangement of the Sanscreet alphabet, so very different from that of any other quarter of the world. This extraordinary mode of combination still exists in the greatest part of the East, from the Indus to Pegu, in dialects now apparently unconnected, and in characters completely dissimilar; and it affords a forcible argument that they are all derived from the same source. Another field for speculation prefents itself in the names of persons and places, of titles and dignities, which are open to general notice, and in which, to the farthest limits of Asia, may be found manifest traces of the Sanscreet."*

Thus, deduced from various sources, and slowing through various channels, the stream of argument carries us back to the central point whence we originally set out; that of a princeval language, universally prevalent among the early branches of the samily of Noah, and disfused with the first colonies through the habitable world; but; in the course of ages, as new events arose, as new governments were formed, and as new ideas

^{*} Halhed's Grammar of the Bengal Language, p. 3.

poured in upon them, undergoing such material alterations and modifications, as scarcely to leave any vestige of its origin remaining, except the radices of some principal words in every dialect of it, by which the relation of the secondary to its primary tongue may be faintly recognized.

I have hitherto attended folely to alphabetic writing; to letters as the symbols of found, not to those of the hieroglyphic kind, which are properly the fymbols of ideas and objects. The latter appear to have no connection with the Indian alphabet, whatever they may have with that of the old Egyptians or that of the present Chinese; the only people, besides the Japanese and Mexicans, who now make use of so complicated a tystem of conveying their ideas and perpetuating their fentiments. On the consideration, therefore, of that particular class of alphabet, there is no occasion that I should enter in any detail, yet, upon this subject, I cannot avoid remarking, that, if the hieroglyphic and fymbolic character, used by the Chinete, be no proof of their descent from the Egyptians, upon which ground M. de Guignes founded his arguments for fuch descent. \mathbf{p}_{2}

descent, by the same line of reasoning, the fystem of the Brahmins, adopted by Sir William Jones himself, who insists upon their having originally sprung from a Hindoo stock, is, - I speak with respectful submisfion to his genius and learning, - very confiderably weakened, if not wholly subverted; for, is it possible, that, during the gradual migration of their tribes castward, and at that early period, when the Sanscreet flourished in its full vigour, that they should have lost all remembrance of their native tongue, either the vulgar Sanscreet dialect, or the elegant and polished Devanagari; and should have adopted, in the room of an alphabet already elaborately formed, and justly distinguished for its comprehensive utility, its refined correctness, and the beauty of its arrangement, vague and prolix system of symbolic characters composed of the forms or detached parts of the forms of animals and objects, inconceivably intricate in their combinations, and infinitely diverlified in their number and fignification? I am aware that the fancy of fome learned men has endeavoured to fix a hieroglyphic stamp on many letters of the Hebrew, Arabian, and other Eastern alphabets; as, for instance, that in the Aleph, which fignifies an ox in Phænician, is reprefented the head of the ox; the Beth, which, in the Hebrew, imports a house, the figure of fuch houses as are to this day used in Palestine-Syria, the foundation, the wall, and the flat roof; Gimel, the camel, whose tall figure, and long and curved neck, the form of that letter appears to represent; and, in the letters of the Arabian alphabet, the arms and implements of the tent of the ancient Arab-shepherd, as his drinking-cup, his hunting-horn, his battle-axe, &c. all which fuggestions, though probably not entirely without fome foundation in truth, afford but a weak basis for the hypothesis intended to be crected upon it.

With respect to the Chinese themselves, once so prougly vaunted as the masters of Asiatic science, were it not for the high respect, in every acceptation of the word, due from me to the decision of so distinguished a character, to whom the history and literature of Asia were so familiarly known, I should be inclined, on this subject, still to adhere to the system of M. De Pauw, who strenuously contends that the Chinese

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are the lineal offspring of the ancient Tartar race, who descended, in wild clans, from the steeps of Imaus, into the fertile plains of this benigner region, and consider the great resemblance instanced by himself, in the thin beards, small eyes, and flat noses, of the two nations, as evidence nearly incontrovertible. Another important objection seems to offer itself in the total difference of the structure of the two languages of China and India; the former consisting principally of monosyllables, and that of the Brahmins abounding with words of many syllables, and delighting in compound epithets that often run through half a page.

To the preceding general remarks on Afiatic languages, I shall now subjoin such particulars, concerning the Sanscreet alphabet and language, as may be sufficient to afford the reader a proper conception of them without entering into the wearisome and disgusting minuteness of a grammatical disquisition. The term Sanscreet, according to Mr. Wilkins, is compounded of the preposition san, signifying completion, and skrita, finished. It means, therefore, a language exquisitely refined and polished: but this

this must have been the effect of the unwearied diligence, and predilection for their native tongue, of the Brahmins; for, it could not have been so in the first instance, when it bore a near resemblance to the square unadorned Chaldaic character. It is also, we have observed, a very compound language, and delights in polysyllables.

The most ancient Phænician letters, introduced into Greece by Cadmus, were but fixteen in number; about the period of the Trojan war, four more letters were added by Palamedes; and, many years after, Simonides, by adding four others, completed the Greek alphabet. The amount of the Egyptian alphabet, according to Plutarch, was twenty-five; and that of the Hebrew is twenty-two. But the Sanscreet alphabet apparently exceeds, in the number of its letters, all that ever were formed, confisting of no less than fifty. Of these, thirty-four are confonants, and the remaining fixteen are vowels. The Brahmins glory in this uncommon copiousness of the Sanscreet alphabet; but, after all, there is no folid reason for this triumph: of their numerous consonants nearly one half are said to carry combined founds. P 4.

founds, and fix of their vowels are merely the correspondent long ones to as many that are short; which reduces it nearly to a level with the other alphabets of the ancient world. Copious and nervous as the Sanscreet is allowed to be, the style of the best authors is still extremely concise, sometimes even to obscurity; hence the innumerable sastras and commentaries on all their sacred and scientific books; and hence, it may justly be added, the unbounded influence of the Brahmins, who explain them as they please to their ignorant, but devoted, followers.

The four Vedas, it is well known, are the great store-house of Sanscreet learning. They are said originally to have been but three in number, the sourth being supposed to have been composed in a period many centuries later than the other three. The argument advanced on this subject, in the Asiatic Researches, is two-fold. The first arises from the very singular circumstance of only three Vedas having been mentioned in the most ancient and venerable of the Hindoo writers; and the names of those three Vedas occur in their proper order in the compound-word Rigyajushama, that is to say, the

Reig Veda, the Yajush Veda, and the Saman Veda. The second argument is drawn from the manifest difference in the style between the fourth, or Atharvan Veda, and the three before named. That of the latter is now grown so obsolete as hardly to be intelligible to the Brahmins of Benares, and to appear almost a different dialect of the Sanscreet, while that of the former is comparatively modern, and may be easily read, even by a learner of that sacred language, without the aid of a dictionary.*

The date of these venerable books goes so far back into antiquity, and that date is so well authenticated, that, with every respectful deference to the opinions of those worthy and pious writers who contend that ALPHABETIC LETTERS originated with Moses, when he received from God the Table of the Decalogue, I am unable to subscribe to that opinion, though I most readily admit the language, in which that decalogue. Was written, to have been the oldest in the world, and probably imparted to man by inspiration, but at a much earlier period. I am bound faithfully to represent,

^{*} Asiatic Researches, vol i. p. 346, 347.

so far as yet unfolded, the Hindoo sciences; and, on this subject, I must fortify myself with the observation of Sir William Jones, whom nobody will accuse, any more than, I trust, myself, of intended disrespect to the high character and functions of the Hebrew legislator, but who has declared it to be his firm belief, arifing from both internal and external evidence, that the three prior Vedas are above three thousand years old;* and, to the YAJUSH VEDA, in particular, he assigns the possible æra of 1580 years before the birth of Christ, which is nine years prior to the birth of Moses, and ninety before Moses departed from Egypt with the Israelites.+ The first promulgation of the Institutes of Menu, he thinks, was coeval with the first monarchies established in Egypt or Asia; and he remarks a strong resemblance of them, in point of style and grammatical construction, with the VEDAS themfelves. I shall not enter farther into the question, but leave every man to form his

[•] On the Antiquity of the Indian Zodiac, in Asiatic Researches, vol. iii. p. 289.

⁺ Ibid, vol. v. p. ;

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own opinion on the subject; and proceed to the consideration of what, by the industry of our learned countrymen, has been gleaned from those precious fragments of ancient Indian literature.

HAVING already, in various parts of these volumes and the Indian history, treated concerning many of the arts and sciences anciently most cultivated in Hindostan; in particular their style of ARCHITECTURE, when discoursing on the pagodas; their skill in SCULPTURE, when examining the figures of Elephanta; having given the entire history of their progress in NAVIGATION, in an express differtation on that subject, so interesting to Britons, in the 6th volume of these Antiquities; having, also, in the Commercial Differtation, confidered their MANUFACTURES, and the arts more immediately connected with the beautiful productions of the Indian loom; I conceive my duty to the public, on this point, already in a great degree fulfilled. Their literature and sciences open an immense field for discussion, and materials for the full investigation of them are still among the Indian desiderata. I request, therefore,

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in a particular manner, the exertion of the reader's candour in perusing the following Dissertation, as the mine of Sanscreet literature has been hitherto but little explored; though I rejoice to hear there are rising in India many able and willing candidates for that arduous employ.

GENERAL PHYSICS.

In all retrospects upon Indian science and history, it will be observed that an uncommon degree of natural history is blended with it; and, in fact, their mythology is a compound of physics and metaphysics. Extenfive, therefore, as have already been our difquisitions on that mythology, occasional references to it can with difficulty be avoided, because, in fact, there is scarcely an art or science which has not its respective numen prefiding over it, who is supposed to direct the labours of the artist and the researches of the scholar. Even their theological speculations are, in a great degree, founded upon what they observed passing in the physical world. They faw a direct tendency in nature

to diffolution; they therefore fabricated a defroying deity; but, as they also observed a
power in nature capable of counteracting
that tendency, the same fertile imagination,
in consequence, conceived a preserving deity,
his enemy and antagonist. Hence, probably,
the true source of that rooted enmity immemorially subsisting between the followers
of Veeshnu and Seeva. Every element is,
in fact, a personisted God; the minerals of
the earth, and the corals of the ocean, have
their guardian genii; and a subtle spirit pervades and presides over even the humblest
tribes of vegetation.

Much as hath already been faid on the subject, yet, as it is ever a prominent object in Oriental literary research, I commence my inquiries with renewed investigations and summary retrospect upon their system of

ASTRONOMY.

I have ventured, in various parts of the two works before the public, to give a date to the Brahmin system of Astronomy nearly coeval with the flood; because, in whatever

ab-original country their ancestors were settled, whether in Chaldaa or Iran, that science was absolutely necessary to a race of men who feem, from the earliest times, in a peculiar manner to have devoted themselves to agricultural concerns; to a race not "fleshed in blood," or wandering wild over immense deferts, like the favage tribes of Scythia, but who, from their origin, feem to have affociated in affectionate tribes, and been united by the strictest bonds of domestic intercourse: a race who, for the most part, exist entirely upon the grains and fruits which the cultivated earth abundantly produces, and therefore must of consequence be supposed intimately acquainted with the times and scasons, the refult of astronomical observation, most proper for that cultivation. I confidered that system as containing a confiderable proportion of ante-diluvian astronomy, concerning which, though all that can be advanced must be allowed to be nothing better than ingenious conjecture, yet, fince the Indian nation feem always to have adhered fo closely together as a people, and fince Budha is faid to have married ILA, Noah's daughter, it is most probable, that, among them, the remains of the

the ante-diluvian sciences flourished in a more persect degree than among the other widelydispersed branches of his family.

I have also strenuously contended for the existence of an older sphere, containing certain obsolete asterisms at present not to be found in the catalogue of modern constellations, as the Phalæna, the wandering moth of night; the Succoth Benoth, or ben and chickens; the Oblation, and others, alluded to by Mr. Costard in his Chaldæan Astronomy.*

The devotion of the Indians to this favourite science, in the earliest periods, is farther proved by its intimate connection with the history of their most ancient sovereigns, who seem all to have been a kind of planetary deities; and the reign of the king and the revolution of the orb, as has often been before observed in these pages, to have been perpetually consounded in their wild mythological records. Hence I was induced to consider the sphere itself as formed by the united wisdom of the Patriarchs, exhibiting to us a rich volume of hieroglyphics, (the

^{*} Costard on the Chaldwan Astronomy, p. 67.

only mode of defignating objects and ideas in those remote æras,) having an immediate allusion to the characters and events of the greatest importance to mankind; and consequently in a high degree illustrative of the history of man in the infancy of human government. Aftronomy, indeed, could fcarcely fail of flourishing in the highest vigour during the remotest periods in India as well as throughout all Asia, in consequence of the decided patronage afforded that science by Eastern sovereigns. From the foundation of their respective empires, the kings of Chaldæa and India cherished and entertained in their palaces the wife men and philosophers of their realms; and it must be owned, in return, that astronomical priests have in all ages been found too susceptible of royal favour, and have been but too grateful in repaying their kindness, by flattering them with titles and honours more than mortal.

With respect to the ancient Indian astronomy, it is a vast system of cycles ascending by no very regular gradations from their Sook-LA-PAKSHA and CREESHNA-PAKSHA, or the dark and bright balves of the moon's orb; Vol. VII.

that is to fay, in plain English, a fortnight, to millions of revolving years, lunar and solar, infinitely diversified, and alternately calculated by the rules of terrestrial and celestial computation. It is an endless labyrinth, to which the Brahmins themselves, from the lapse of time and the decay of science among them, seem at present to possess but a very uncertain clue; but, through which, as authentic information has hitherto arrived in Europe, we have already in great part toiled in the first volume of Indian history.

Whosoever will cast his eye upon a Hindoo sacred calendar will perceive a most decisive proof, how incessantly, in the most ancient periods, the Brahmin priests must have watched the motions of the heavenly bodies. All the long train of fasts and sessivals rigidly prescribed that superstitious nation, in the Vedas and other sacred books, is regulated by the position of particular planets in the heavens, and the consequent benevolent or malignant aspects imputed to them by the mad votaries of astrological science, which then held in chains the wisest and most virtuous of mankind.

It will be also remembered, that the obligation to observe these rigid fasts and these ever-returning festivals was of no slight nature. The tremendous superstition that enjoined them on the timid Indian was implanted in his inmost foul, or rather was inwoven with his very constitution. engrosses the earliest habits of his life, and continues its influence over his latest. even the most casual omission of the minutiæ of that holy ritual, he hears the thunder of Seeva rolling to overwhelm him: or, what is not less dreaded than the wrath of heaven, he fees himfelf reduced to the forlorn condition of a Chandelah, or outcast, to whom the elements themselves are hostile, and for whom neither heaven nor earth have any place of fafety or repose. The baneful effects of this entire devotion of the Hindoos to the ceremonious injunctions of their religion are often recorded in the page of their history. Undertakings of the highest national importance have been abandoned, for some idle punctilio of this kind, at the instant when success seemed indubitable; and the Mahommedan generals taking advantage of some, to them auspi-

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cious,

cious, day, when the Hindoo religion forbids the use of arms, have marched unresisted into their most wealthy and best fortified cities. Sonnerat, in particular, expressly asserts this sact concerning the Aidu Pooja, or feast of arms, which falls in October, and is holden so sacred, that, on the day of its celebration, the Hindoo will not take up arms to defend himself. He adds, that the general of the Soobah of the Deccan, who besieged Gingy, chose that day for the assault, being persuaded the garrison would not defend the place on that day, and he actually entered the garrison without meeting the least resistance.*

We have feen in Vol. VI. in what very remote periods the Indians had navigated the great ocean, fince, in the "Institutes of Menu," written twelve hundred years before Christ, provision is made for losses incurred by adventures at fea; and the circumstance of its being thus particularly mentioned, in a part of the grand legislative code, proves the antiquity of the commerce as well as the danger attending it. Now it is impossible for navigation to be carried on, to any extent,

^{*} Sonnerat's Voyages, vol. i. p. 135, Calcutta edition.

without a knowledge of astronomical science. A correct knowledge of the position in the heavens of certain stars, uncommonly brilliant, with respect to the earth, was absolutely necessary to the mariner in directing the course of his vessel over the trackless ocean, whether to the shores of Egypt or Arabia, which countries, by the aid of the monsoons, they seem immemorially to have visited; the former, for the purpose of vending to that luxurious people the rich commodities of India; the latter, for those costly spices and aromatics which were foreign to their own delicious climate.

In farther proof of their early proficiency in astronomy, or rather that many interesting branches of that science originated among them, may be urged, what has already been intimated in the first volume of the Indian history, the circumstance of their being in possession of a table of Lunar Mansions, in number twenty-eight, a mode of dividing the heavens unknown to the Greeks, and which, therefore, could not be borrowed from them. All the names of the asterisms, and all books on this subject, are written in pure Sanscreet, and conse-

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quently must have been long anterior to the age of Alexander, when its purity had declined. Their mode of defignating these lunar mansions is by objects and animals perfectly novel and original, and in the Hindoo style: Indian conques, saffron, tabors, heads of antelopes, gems, pearls, &c. The planets in their system, we have seen, are all personified, and invested with appropriate dresses and symbols, and are represented riding on animals, characteristic of their flow or rapid revolution in the heavens. Thus, it has been observed, the Sun is mounted on a lion, to mark the ardour and fierceness of his beam; the Moon on an antelope, to denote the rapidity of her progress; Mercury on a hawk, a bird whose soaring wing explores the highest region of æther, while its undazzled eye gazes stedfastly on the orb of day, shining in meridian splendour; Mars, armed with a fabre, is borne on a war-horse through the heavens: Venus, the radiant harbinger as well of the opening as of the closing day, is mounted on a camel, an animal patient and indefatigable, that pursues his unwearied journey over trackless deserts and burning fands, early and late, before the fun fun rises, and after it has declined; Jupiter rides on a boar, a flow and sluggish animal, the emblem of his tedious revolution; and Saturn measures round the circumference of his vast orbit exalted on the back of a heavy unwieldy elephant. But of Saturn, or Sani, as in the old Sanscreet books he is denominated, there occurs in that system a very curious circumstance not mentioned before, and which deserves the marked attention of the astronomical student.

Sani has already been described, from San-screet authorities, as a malignant planet, and he is metaphorically represented as the flow-moving child of Surya, the Sun. The Indians entertain dreadful apprehensions concerning him, and offer to him conciliatory prayers. He is depicted of a blue colour; he has four arms; he is mounted upon a raven; and is surrounded by two serpents, whose intertwining bodies form a circle round him.*

I have already intimated in a former volume, that the *circle* formed around SANI, by the intertwining ferpents, was probably intended to denote his RING. I have fince had

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[·] Sonnerat's Voyages, vol. i. p. 63.

the figure engraved for the reader's inspection and decision. It is impossible to ascertain the exact age of the pictured image in the pagoda from which the portrait was taken; but probably both are of a very remote age; for, the Indian pagodas are not fabrications of yesterday, nor in their conceptions and defigns are they given to frequent viciffitude. Now, if Sani were thus defignated in very ancient periods, the fact proves that they must, by what means can scarcely be conjectured, have discovered the phenomenon of his RING; for, what besides could that serpentile oval, enclosing the body of Sani, be intended to represent? That phenomenon, however, was not known in Europe till about the year 1628, when Galileo, with the first perfect telescope, discovered what he conceived to be two stars at the extreme parts of the planet; but which, in reality, proved to be the ANSÆ of that ring, the actual existence of which was afterwards demonstrated by Huygens and succeeding aftronomers. The circumstance is not the least wonderful of those that occur in the discussion of Indian antiquities and literature. I have stated the fact, and engraved the image;

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image; I leave to abler judges the task of decision.

There is no occasion, however, to trouble the reader with farther conjectures on the high proficiency in aftronomy of the ancient Brahmins, fince indubitable proofs of their rapid advance in that science are to be found in the most ancient pagodas of Hindostan, all placed with fuch aftronomical precision, as with their four fides constantly to face the four cardinal points. These were examined and found to be exactly thus fituated by M. Gentil; and in this circumstance they resemble the pyramids of Egypt, probably the work of the fame artificers; for, a variety of facts tends to strengthen the hypothesis, that Egypt, or Misra-sthan, was colonized by the first Indians. On the roofs too and walls of many of these pagodas are deeply engraved the zodiacal afterisms. Various sets of their astronomical tables, of a very ancient date, imported into Europe by learned foreigners, have been deliberately investigated, and proved to give the true aspect of the heavens, and polition of the stars, about the period they were formed. The tables of Tirvalore, in particular, brought to Europe and published

by M. Gentil, merit the most attentive confideration. For, the grand conjunction which those tables tend directly to establish. of all the planets, except Venus, in the first degree of MESHA, or ARIES, with which their celebrated æra of the CALI YUG commenced. has been found, upon the calculation of the ablest astronomers of Europe, to be true, with the addition of an eclipse of the moon, from which their aftronomical time is dated.* On an actual retrospective survey of the heavens, it appears that Jupiter and Mercury were then in the same degree of the ecliptic; that Mars was distant about eight degrees, and Saturn seventeen; and it results from that furvey, that, at the time of the date given by the Brahmins to the commencement of the Cali Yug, they saw those planets successively disengage themselves from the rays of the fun. This is the representation of M. Bailly, that profound and accurate, though, in points of theology, sceptical, astronomer; confirmed, in every instance, by the still more elaborate calculations of the

Le Gentil, Voy. tom. i. p. 133. Bailly's Aftronomie Ind. p 110.

learned Mr. Playfair, professor of astronomy at Edinburgh. While the romantic and extravagant boasts of the Brahmin chronologers, in respect to the epoch of creation, remained unrefuted, I besitated to admit this decision of M. Bailly as valid evidence; but the nature of their wild chimeras in aftronomy having been fince frequently explained in the Afiatic Refearches, and it being now well understood by what kind of years their calculations were regulated, I am willing to give every due credit to the laborious and learned researches of that profound astronomer, sacrificed to the guillotine by his perfidious countrymen. It is a circumstance not less astonishing, than this its early maturity in Hindostan, that so little genuine astronomy should at this day flourish in that degenerate country; and that the modern race of Brahmins should regulate their astronomical studies by the rules, without knowing the principles, that guided their ancestors in cultivating this fublime branch of ancient literature.*

^{*} See Mr. Playfair on the Brahmin Astronomy, in Philosoph. Transact. Edinburgh. vol. ii. p. 136.

The epoch of this celebrated æra of the Cali Yug, which, according to M. Bailly, answers to midnight between the 17th and 18th of February of the year 2102 before Christ, thus scientifically adjusted by learned Europeans, may be admitted, because within the limits of the chronology of the facred books that ought to regulate our belief in these matters; for, the first of February, 1700, exactly corresponded to the year 4801 of the Hindoo period of the Cali Yug; confequently above a thousand years within the Mosaic æra of the world. But there is no necessity for our allowing a fimilar latitude to wild speculations in that science which directly militate against it; and this is evidently the case when these tables refer us to observations pretended to be made when, according to them, the folar year confifted of 365 days, fix hours, twelve minutes, and thirty feconds. In the time of Hipparchus, near two thousand years ago, that year was computed at 265 days, five hours, forty-five minutes, and twelve seconds. From Hipparchus, to the age of Ptolemy, the alteration in the length of the year was noted by the latter astronomer; and, from Ptolemy to

our own, the ecrease has been still more regularly observed. By European astronomers of the present day, it is reckoned at 365 days, five hours, forty-eight minutes, and fifty-five seconds. " Hence it would appear, (fays an ingenious modern writer,) that there is a gradual decrease in the length of the year; and, if these calculations can be relied upon," which they certainly cannot, we must conclude that the earth approaches the fun; that its revolution is thereby shortened; and that the tables of the Brahmins, or at least the observations that fixed the length of their year, must have been made 7300 years ago."* Retrogressive calculations have been probably made to fuit that distant period, but certainly not actual observations; since it ascends far beyond even the Septuagint date of the creation, which, as the most extended, I set out with adopting; and the possibility of the advantage of the scientific exertions of the ante-diluvians; which, to obviate the objections of the sceptical philosopher, I have ever been willing in a certain degree to admit of, in the exten-

^{*} Sketches of the Hindoos, p. 216 1st edition.

five survey taken, in these columes, of the literature of their earliest post-diluvian descendants.

While I am hold to affirm that these are the chimeras of astronomers. I will not shrink from my duty as the historian of the literature of India, by presenting the reader with an account of some actual obfervations, made in the most remote zeras. that can scarcely fail of exciting astonishment, and may strike some prejudiced minds with difgust, as if on this subject, not less than the date of alphabetic writing in India, I was determined to oppose all established opinions concerning the origin and the progressive advance of science in the East; but, magna est veritas, et prævalebit. The evidence is of high authority, and deserves every credit; and let it be remembered that we are discussing the literature of one of the highest and most illustrious branches of the family of the father of the renovated world.

Passing by the age of Greek sable, Atlas, Chiron, and Musæus, the mere offspring of imagination, the oldest authenticated Greek observations of the heavens extend no farther

back than the age of Thales, about 600 years before Christ; and these may be well supposed, in that infancy of the science, extremely rude. Instructed in Egypt, that prince of philosophers taught the Greeks the true time of the EQUINOX and the exact length of the tropical year. Anaximander flourished about fifty years afterwards, and is faid to have first made that important discovery, the obliquity of the ecliptic. But all this extent of science must have been well known to the Brahmins at least 600 years before: for, the Indian annals, made with the requisite precision, record an actual observation, that absolutely fixes the exact places of the folfitial points and the equinoctial colures, in the twelfth century before Christ: and it was by this observation that Sir William Jones was enabled to fix the age of Menu's Institutes to the same century.*

From a text of Parasara, an ancient Indian astronomer; which records the observation, it appears, that, between the period when he flourished, and Varaha, a more re-

^{*} Sir William Jones in Asiatic Researches, vol ii. p. 393. London, quarto edition.

cent astronomer, who confirms it, and lived in the year 499 of the Christian æra, the equinox had gone back 23° 20'; that is to fay, the fouthern folftice, which, in Parafara's time, was in the middle of ASLESHA, a lunar mansion, denoting the stars in the face and mane of the Lion; and the northern in the first degree of DHANISHTHA, a lunar mansion, meaning the stars in the arm of Aquarius; was found, in Varaha's age. to be, the former in the first degree of CARCA-TA (Cancer), and the latter in the first of MACARA (Capricorn); - in other words, about 1680 years had elapsed; and fince. in demonstrative proof of all this, Sir William Iones has taken the trouble to present us both with the original Sanscreet text, and an exact literal translation of that text, not the least doubt can be entertained of the truth of a statement which does so much honour to the learning and industry of the ancient Hindoo race.

The doctrine of the seven revolving spheres through which the transmigrating soul must migrate before it can reach the abode of the supreme Brahme; the circular dance of the Brahmins, recorded by Lucian, and called,

in India, the RAAS JATTRA, or facred dance, imitating the revolution of the planets round the fun; the positive affertion of Sir William Jones, that the works of the fage ACHARYA include a system of the universe founded on the principle of attraction, and the central polition of that orb; and, also, that the names of the planets and zodiacal stars are found in the oldest Indian records;* afford abundant proof, that, if the ancient Indians were not absolutely the inventors of astronomy, they at least had arrived in the earliest post-diluvian periods at an unexampled point of excellence in that wonderful science. But having, in the first volume of the history, when confidering the Indian sphere and zodiac, entered very much at large into this subject; having shewn the striking similitude between the Chaldwan and Indian aftronomical system, at least in its great outlines; and having in fact demonstrated that their spheres were the same, with a trisling difference only, in the defignation of certain of the asterisms: it is unnecessary for me to dwell longer on this head of Indian litera-

[·] Asiatic Researches, vol. i. p. 430.

ture. I therefore pass on to a subject very deeply connected with it, and in any advanced state of the science absolutely necessary to it,

GEOMETRY.

On the commencement of the Geographical Differtation,* I had occasion to observe that the science of Geometry was, in all probability, invented in India. One reason urged by me in support of the observation, but by no means the strongest that may be adduced, was the frequent and wide overflowing of the great Indian rivers, not only of those regions where vast Deltas have been formed at their place of ingress into the sea, but of those in the more northern latitudes of Upper Hindostan, whose rapid and desolating current. rushing down from the Hindoo Caucasus. bore away the boundaries of the land they were meant to divide, and confounded the property of the natives. The Nile over-

^{*} Sec Indian Antiquities, vol. i. p. 1.

fpreads Egypt with a gentle and gradual advance of its fertilizing waters, but the rapidity and overwhelming violence of a torrent pouring down from Paropamifus, the Gauts, and other high mountains in various regions of India, would not fail to beat down and obliterate every barrier which man, in the infancy of agriculture, could erect against its rage; and, as the first settlements of his race doubtless took place in the Higher Asia, and nearest the region where the ark rested, I consider the long-contested question, whether the Indians or the Egyptians were the first inventors of this science, to be in consequence very much in favour of the for-But a stronger and still more conclusive argument, in favour of the latter polition, feems to be the impossibility of otherwise exactly proportioning the rate after which every individual zemindar, or land-holder, was equally in the most early and the most recent periods of the Indian empire affested, and which universally depended upon the quantity of ground possessed and cultivated by him. The ancient classical writers affert, that the tax paid to the government in India was the fourth part of the produce of the

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foil; but, upon Sanscreet authority, near two thousand years old, I can affert that it was at that period, and probably previously to it, the fixth part only of that produce; for, to that purport, in the Sacontala, does the Emperor Dushmanta decisively express himself.* Similar accounts, I am aware, may be found in Herodotus and Diodorus Siculus concerning the mode of collecting the tribute in Egypt; but, throughout this work, both Egyptians and Ethiopians are considered as an emigrated race, originally Indians, and to the parent country, therefore, when customs are so strikingly similar, the honour of invention cannot with justice be denied.

As the Egyptians had with immense labour dug the vast lake Mœris, and other ample reservoirs for the waters of the retiring Nile against the period of drought; so also have the ancient Indians formed, by the nicest rules of geometrical proportion, in every quarter of their empire that required it, square tanks of prodigious magnitude for the same purpose. In their stupendous efforts in architecture particularly, the triangu-

^{*} Sacontala, act v. p. 53.

lar pyramid, the circle, the fquare, and the cone, for ever occur in the internal or external parts of their temples. And by what means was it possible for such ponderous stones, as, for instance, those that crown the fummit of the grand portal of Chillambrum. forty feet long, and five broad, to be raised to the altitude of one hundred and twentytwo feet, but by the aid of geometry joined to mechanics? From what other fource has it arisen that the amazing colossal carved work and images in Salsette and Elephanta, of stupendous antiquity, are executed according to the rules of such just proportion as they are represented to be by Mr. Hunter and others who have accurately examined them? and that fuch lofty columns, richly adorned with mythological sculptures, are feen elevated to a vast height in every province of Hindostan? In respect to astronomy, it was abfolutely necessary that they should be possessed of a very ample portion of geometrical skill to fix so precisely, as they have, the polition of their pagodas, in order that their four fides should face the four cardinal points; pagodas, many of them erected in the remotest periods of their

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empire; and to form those ancient astronomical tables mentioned above which have so highly excited the astonishment of the literati of Europe.

It was long supposed that the ten numerical characters of ARITHMETIC were the invention of the Arabians: that nation, however, only introduced them into Europe, and confess themselves obliged to the Indians for them, among whom they were immemorially used. A nation, indeed, so devoted to commerce, as the Indians, could not carry on their concerns without this aid; and, while the polished governments of Rome and Greece were awkwardly using, for the purpose of enumeration, the letters of the alphabet, this wife and ingenious people, by the invention of the figures in question, were performing, with the utmost facility, the most complex calculations. Indeed, their adroitness in this respect has often been the admiration of foreigners, as a Banyan merchant, by the operation of memory only, and without pen or paper, is faid to fum up his accounts with the greatest accuracy; and even the vulgar Indian, with his fingers, drawing the symbols of arithmetic in the fand,

fand, will go, with ease and celerity, through the most intricate numerical details. art of ready computation was effentially necessary where the property was so various. where the annual revenues both of the fovereign and of many individuals among his subjects were so immense, and where such accuracy was necessary with respect to the number, weight, and measure, of the commodities trafficked in. Connected with geometry and arithmetic is the invention of the balance, a symbol early exalted to the zodiac by the Brahmin astronomers, and in all likelihood also the product of the genius of this commercial people. The advance of the ancient Indians in mechanic science of every kind must, for the reasons above-mentioned. have been very early and very great; and, in fact, like the venerable fabricators of Stonehenge and Abury, they feem to have been in possession of some secrets in that science which have not been transmitted to their posterity.

The same species of injustice that would rob them of the honour of inventing the decimal scale, the Indians appear to have suffered in regard to ALGEBRA, which,

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though long attributed to Arabian ingenuity, is the undoubted fruit of Indian genius; for, various treatifes on this useful science, as well as geometry, are alluded to in Sir William Jones's Dissertation (the last which he wrote) on the Philosophy of India; * and, being in Sanscreet, they must necessarily be of an age far anterior to that of Archimedes, the great practical geometrician of Greece. With respect to the substance of these treatises, that is still among the Indian defiderata; though probably this will not long be the case, if Mr. Davis should fortunately have health and leifure to purfue the peculiar line of study which he has chosen for his province, and by which he has already been enabled so successfully to elucidate the abstruse mathematical sciences of the Brahmins.

The great advance, also, which we shall hereaster see the ancient Indians had made in music, a science in which sounds are expressed by lines or chords accurately divided and arranged according to geometrical rules, exhibits an additional proof of their progress in this

^{*} Afiatic Researches, vol. iv. p. 178, London, quarto edit.

species of necessary knowledge. But what most of all proves their attachment to this science, as well as their exalted opinion concerning it, is, that, in their mysterious and hieroglyphic theology, they were accustomed to apply the figures and characters used in it to illustrate their ideas of the fanctity and perfection of the Deity. They transferred their geometrical speculations from body to spirit: and, from measuring terrestrial objects, they attempted to define subjects immeasurable, infinite, eternal. They compared the Deity to a CIRCLE, that most perfect and comprehensive of all mathematical figures, whose centre is every where but whose circumference is no where to be found; and in allusion to the ancient doctrine of a certain plurality, which it has been demonstrated in preceding pages they believed to exist in the divine nature, they defignated it by the expressive symbol of an equilateral TRIANGLE. Hence the winged globes that decorate the front of all the Egyptian temples, and the triangular columns in memorial of their facred triad, at the entrance of most of the Indian pagodas.

MEDICINE.

To a minute investigation of the peculiar virtues and qualities contained in certain plants and herbs the old Indians were naturally incited by the vast variety and beauty of those innumerable vegetable productions that cover the face of that fertile region. These in many places grow up spontaneously; many, applied to sacred uses, the ministers of religion reverently cherished; and many the hand of traffic diligently cultivated for exportation. Her rich spices and aromatics of every kind, her costly gums, and fragrant nards, of sovereign efficacy in the healing art, exceed all calculation in number and value.

Their beauty, number, and variety, indeed, could not fail of being most attentively marked by a race, who lived almost wholly in the open air; who ranged through vast forests, barefoot, in penances and in distant pilgrimages; or resided in delicious groves; and, if the scenes of the Sacontala represent them justly, who cultivated in delicious gardens the sacred plants

plants of cufa, bilva, the lotos, the fandal, and other trees, for the service of the temples.

The Brahmins in those ages exclusively professed the medical science; and it was absolutely necessary for those who subsisted on the vegetable productions of the earth to be well informed of the falutary or noxious quality of the roots on which they fed. Their advance in this science, consequently, must have been very gradual: it depended upon long and intense observation of the effect on the human constitution, produced by the different species of herbs and plants cultivated in the garden or growing wild in the field; and wisdom, in many instances, could only have been obtained by fatal experience. They also fedulously observed the effect of different plants upon animals; and as Melampus, a Greek, devoted to the concerns of pastoral life, from observing that goats were purged after eating the bitter root hellebore, administered it afterwards with similar effect to man, and was therefore confidered as the inventor of that branch of the science; so. doubtless, the Brahmins, in the boundless forests of India, were guided to the use or reiection jection in physic of the various vegetables that spring up spontaneously in that more exuberant soil.* The venomous tribes of reptiles, beautiful

• I beg permission to insert in this place a note, fraught with information highly illustrative of the subject under consideration, from the elaborate History of the Origin of Medicine, published some years ago by my learned friend Dr. Lettsom.

"The ancients inform us, that the vulnerary virtues of dittany were first learned from the stag; Plin. I. xxv. c. 53. Theophrast. 1. ix. c. 16. - That the fame animal purges itself by means of feseli; Aelian, I. xiii. c. 50. - That men learned that the ligneous part of cassia was laxative from the ape; Fallop. Purg. Simplic. 35. - That the mungouse, a species of ferret, eats a certain root, after which he attacks the ferpent with impunity; Kæmpfer. Exot. Fasc. iii. c. 10. Auct Herb. Amb. c. 37, 53. G. ab Orta, 1. i. c. 44. et Loch. in Diff. On which account it is used in malignant diseases. - That the deer wounds its eyes when they are inflamed with the point of a rush, and the goat with the bramble; Geopon. 1. xviii. c. 18. Plin. l. viii. c. 50. Aelma. l. vii. c. 14. - That the tortoise defends itself against the bite of a serpent by origanum; Aelian. Anim. l. vi. c. 11. - That the bear, by means of the arum, opens its intestines, almost collapsed during winter; idem. 1. vi. c. 3. - That the same animal licks up ants as an antidote, when poisoned by eating the mandrake; Plin. I. viii. c. 27. -That jays, partridges, and blackbirds, purge themselves with the leaves of laurel during their moulting; 'idem. - That pigeons, cocks, and doves, use pellitory, and ducks and geefe stone-crop, for the same purpose; idem. - That hawks cure their eyes by the juice of the hawk-weed; Aelian. Anm. I.ii. c. 43. - That the serpent casts the skin off its eyes by the application of fennel; idem, 1. ix. c. 16. - That partridges, florks, and wood-pigeons, heal their wounds by origanum; idem, l. v. c. 46. - That, from dogs eating certain herbs, in order to purge themselves, the Egypbeautiful but baneful, that lurk amid the luxuriant vegetation of India, by their attacks upon man, added a stimulus to their refearches in this walk of science. The bite of some of the Indian serpents is so immediately destructive, that if the herb, benevolently ordained by an all-wife Providence to be its antidote, be not instantly applied, inevitable death is the refult. In consequence, vigilance was redoubled and experiments multiplied; the plants, injurious or fanative, were classed in a kind of rude order: medical receipts were treasured up in families memoriter, and handed traditionally down with scrupulous fidelity from father to son through fuccessive generations.

It is presumed, that the books of medicine, at this day in use among the Indians, contain numerous collections of similar recipes; the greater part of which consist of autidotes

tians learned the art of purging; idem. — That from dogs, also, the virtue of pellitory in dissolving calculi was discovered; Boccone. — That Melarapus discovered the purgative quality of hellebore, by observing its effects upon goats. That deer, when injured by a species of venomous spider, eat crabs to obviate its effects; Plin. I. viii. c. 10. Aelian. Var. Lest. I. xni. c. 50. Confer. Haller. Biblioth. 1 i. p 3." — History of the Origin of Medicine, p. 88.

against poison, in the deadly qualities of which the old Indians are recorded to have been deeply versed, and to have often administered it, though at the same time they well knew how to repel the violence of the most fatal of that class of drugs. The feigned tale of the propensity of the Hindoo women to get rid of their husbands by this infamous method, and consequently of their being compelled from that cause to burn themselves on the same funeral pile that consumed their remains, was probably founded on the general persuasion of the ancients in this respect.

The conceptions of the ancients, however, in regard to the cause of this singular ceremony, were undoubtedly ill-founded; for, women devote themselves, in India, to the consuming slame in consequence of the sub-lime promises holden out to them for this sidelity, even in death, to their husbands, in the sacred Vedas.* The real origin of the Hindoo law, that permitted the living to burn themselves, and enjoined the burning of the deceased, seems to have been derived, the

^{*} Halhed's Gentoo Code, preface, p. 4.

former from mythology, on the supposition that the transmigrating soul was purified in its passage through the elemental slame; the latter, that it prevented the air from becoming, as might be conjectured, tainted in that burning clime by putrefaction. The Indians had fufficient store of common as well as fragrant woods to perform this ceremony. Egyptians, on the contrary, whose country afforded but flender supplies of wood, endeavoured, by embalming the dead, to avoid that dreaded evil. This want of timber for building elegant and airy structures was also probably the occasion of giving to their architecture, and, among other buildings, to their sepulchres, that massy and indestructible form, which for so many centuries has refifted, and for as many more perhaps may resist, the united violence of the sun and weather.

As the nation at large was deeply interested in this kind of medicinal research, after the invention of alphabetical writing, it became equally the law of Hindostan as of Greece, that remarkable disorders, and their mode of treatment and cure, should be recorded on tablets conspicuously suspended on the pillars lars of the temple; which, in consequence, every body was able to consult, and regulate, by the rules there laid down, the treatment of the malady with which either himself or his family were inflicted. The catalogue, increasing with every age, soon became enormously great. The books, which the Hindoos at this day, and the Egyptians anciently, pretended to have in medical science, were probably nothing more than observations and recipes of this kind carefully collected and zealously preserved.

In all operations where incision was absolutely unavoidable, the ancient Indians, doubtless, used for a time, like other nations, instruments made of siliceous substances, to which the ancients had found out a method of giving an edge as sharp as the keenest steel; for, both Herodotus and Diodorus inform us, that it was with an Ethiopic stone the Egyptian physicians opened the dead bodies, and cut out the entrails of those that were to be embalmed; and with sharpened slints, also, they performed the ceremony of circumcision.*

^{*} Herodotus, lib.ii. - Diod. Sic. lib.i. p. 101.

A confiderable portion of the precepts in the code of Indian laws has either an immediate or remote allufion to the health of the four great tribes. Hence their innumerable ablutions, their temperate diet, their various fasts, so proper in a country where perspiration is abundant, where an ardent fun urges and inflames the juices of the blood, and an universal disposition to libidinous pleasure prevails. The priests of Egypt, induced by fimilar motives, equally forbade indulgence in animal food and wine; the frequently prescribed use of cassia, senna, and other laxative drugs, which are indigenous in that country, checked at once the spreading of the elephantialis and the fervour of passion exalted by the beams of a tropical fun. Thus the flames that formerly ascended in the Egyptian temples at once purified the air and foothed the deity adored. From the vast lakes and other stagnant waters of the Delta ascended noxious vapours, which the facred grass, called κυφος, by Plutarch, profusely burnt three times, was intended to disperse. The grass xupos, of the Egyptians, was posfibly the cusa of the Indians, which was ever of the first note in their herbal sicifices.

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Herodotus, who is very ample on this subject, informs us, that the Egyptians purged themselves every month, three days successively, by vomits and clysters, to preserve uninterrupted health.* Their aversion to the rich and rancid slesh of swine, a species of food also strictly prohibited by the Levitical law, and inviolably avoided both by ancient and modern Jews, as well as the entire abstinence of the sacerdotal order from sish, and animals accustomed to feed on sish, is doubtless to be imputed to the same judicious precaution.

I have frequently observed that milk, GHEE, or clarified butter, and rice, dressed and rendered palatable, a variety of ways, by the rich spiceries of the country, formed the principal food of the Brahmins and indeed of the Hindoo tribes in general. No banquet is esteemed more costly and luxuriant by those priests than a full bowl of fresh cream, whose richness they moderate with the diluting juice of the cooling and high-slavoured fruits of that garden of Asia. Hence the veneration of the Indians for the bovine

[·] Herodotes, lib ii. p. 82.

species, which seems to have originated as well from their gratitude to that useful animal for the nutriment it produced them as from the anxious wish of their great legislator to preserve a race so absolutely necessary to the concerns of agriculture, which was to be the constant employ of the fourth part of the nation; and here we difcover at least one probable source of the prevailing doctrine of the Metempsychosis. This rooted veneration both of the Indians and Egyptians for the same deified animal was the occasion of the former giving to the rock, through which the Ganges rushes into Hindostan, the imagined form of a cow, whence its geographical name of GANGOTRI, the Cow's Mouth; and caused the spot where the Nile separates, at the point of the Delta, to be denominated BATN-EL-BAKARI, Cow's Belly; a very remarkable fact, and fearcely possible to be accounted for on the fcore of mere accident.

With all this studious care of the legislator to prevent diseases, since they are the lot of suffering humanity, diseases would at times afflict the Hindoos with as much inevitable certainty, though, probably, from

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their temperate habits, with far less violence, than their Asiatic neighbours.

It cannot be supposed, indeed, that, in a climate where rice and vegetables compose the uniform diet of the people, many acute difeases could have occurred in the practice of the physician; and those that did occur were probably cured by dietetic medicine, beyond which the knowledge of mankind, in the very early ages to which I allude, cannot be prefumed to have greatly advanced. The whole extent of the science, at that time known, feems to have been confined to the use of medicines that were either of an emetic, purgative, or diuretic, nature. Thus, among those of a purgative fort, are reckoned the Mirabolans, which are prescribed very generally and abundantly in cases that require it. As a fovereign stomachic they give the infusion of a reed, on the Malabar coast, called Craatt, a plant resembling the Centaurus Major: it has an extremely bitter taste, and is considered as a great promoter of digestion. In this light they also esteem the nut of the Areca, mixed with chunam, a kind of lime burnt and made of the finest fhells, of which they univerfally take very large

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large quantities. But what shall we think of a race who infift on the cooling virtues of pepper, and give large doses of it in a burning fever? Among provocatives, they have always fet a very high value on the invigorating root of ginleng, and others of fimilar quality, and have been but too happy in finding out a great variety which need not be here enumerated. For fluxes of blood, which are not uncommon in this climate, especially in the autumnal season, the Brahmins have difcovered a very simple, but, as they affirm, a very efficacious, remedy; it consists in a regimen limited to rice alone, stewed dry, to which they ascribe a quality highly absorbent of the acrimony which occasions the disorder: by way of drink, they allow only water, corrected by a very moderate quantity of cinnamon or cassia lignum.

If we may judge from certain customs now prevalent in India, and recorded by modern travellers, fire was also not unfrequently applied in cases where the aid of the physician was necessary; for, at this day, in violent sickness, purging, and contortion of the intestines, they apply to the feet plates of burn-

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ing iron, which are faid rarely to fail of the intended effect.

The expressed juice of particular roots and vegetables, known by experience to possess either of the qualities above-mentioned, emetic, purgative, or dimetic, was freely adminiftered to the patient who required it. With respect to acute internal diseases, when they did happen, their flender experience in the deeper branches of the healing art, added to their general, I do not fay total, ignorance of anatomy, rendering them utterly inadequate to the management of them, they refigned the patients afflicted with them to the care of the gods, by whose immediate resentment against their crimes, it was firmly believed, they were incurred. In diseases of this desperate class recourse was had to earnest supplication and oblations, often of the most costly kind, in hopes, by them, to appeale the wrath of the offended deity. The Brahmins, who, on these occafions, found it necessary to substitute juggling for science, resorted to the most powerful charms to evoke the evil dæmon, and incantations the most awful were the immediate prelude either to a speedy recovery or a rapid exit. In confidering this early stage of the science. fcience, it should not be forgotten that odours, strongly aromatic or offensively fetid, had their share in the practice of the Hindoo physician; and certain precious stones, of the more costly kind, worn as amulets, were not supposed to be without a sovereign virtue in the cure of diseases.

WAR, to which the Rajah or military tribe had a natural and authorized propenfity, and regulations for the conduct of which, in all the numerous branches of that science, which confequently prove their early acquaintance with it, engage a large part of the Hindoo code, could not have been carried on, especially with fuch inftruments as the battleaxe, and others then made use of, without dreadful laceration of the human frame: and it would be too cruel a reflection on any race of men, however abhorrent at the fight of blood, to suppose the unhappy victims would be left to perish without an effort to staunch the streaming wound whence life was issuing. In these cases, the application of bandages, with the addition of certain leaves or roots bruifed or steeped in balfamic oils, or unguents formed of the vulnerary herbs, were all that could be em-S 4 ployed

ployed by a race of men, who, from superstitious principles, are said in general to have avoided, as much as possible, the use of the lancet, and even to this day to continue entirely ignorant of anatomical diffections.

However inferior the knowledge of the Hindoos in the practice of the more intricate branches of medicine, their early refpect for the profession is evident, by their making a physician, by name Danwantara, one of the fourteen retnas, or precious things recovered from the ocean after the deluge; and from their most ancient medical book, entitled Chereca, being believed by them to be the work of SEEVA. That deficiency of knowledge, however, is by no means an afcertained fact, but rather the contrary; for, Sir William lones declares that he had himself feen Indian prescriptions taken from their ancient medical treatifes, one confifting of fifty-four, and another of fixty-fix, ingredients; but fuch compositions, he adds, are always to be suspected, since the effect of one ingredient may defroy that of another; and is. were better to find certain accounts of a fingle leaf or berry, than to be acquainted with

with the most elaborate compounds, unless they too have been proved by a multitude of successful experiments. "The noble deobstruent oil extracted from the Eranda-nut, the whole family of Balsams, the incomparable stomachic root from Columbo, the fine astringent ridiculously called Japan earth, but in truth produced by the decoction of an Indian plant, have long been used in Asia; and who can foretel what glorious discoveries of other oils, roots, and salutary juices, may yet be made?"*

In another place he acquaints us that infinite advantage may be derived by Europeans from the various medical books in Sanscreet, which contain the names and descriptions of Indian plants and minerals, with their uses, discovered by experience, in curing disorders; and there is a vast collection of them from the Cheraca, above-mentioned as the work of Seeva, down to the Roganirupana and the Nidana, which are comparatively modern. Of medicine, however, systematically formed into a science, he forbids us, after all, to expect finding any ancient treatise whatever,

^{*} Afiatic Refearches, vol. i. p.409. London, quarto edit.

perhaps, in a time Oriental world; what in time may be incovered will be a mere empirical history of diseases and remedies as now practised in India and the greatest part of Asia by Brahmins and Mahomedans.*

In many of the medical pursuits of the Indians, a certain degree of chemical knowledge was effentially necessary, and the same scientific skill by which they were enabled to extract the colour from indigo, fandal, and other vegetable productions, to give the vivid dyes to their manufactured cottons, would doubtless direct their efforts in extracting the virtues of those rich botanical and mineral treasures which their country in such abundance produced for the more important purposes of health. Their chemistry, however, opens an immense field for difcussion; and, on that account, I forbear going at any length into the subject, till it comes regularly before us in this review of Indian literature. What I shall have to observe upon it will merely concern the science under confideration, and as it is connected with a subject extremely interesting, but very much

^{*} Asiatic Researches, vol. iv. p. 350.

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misconceived; I mean, whether in reality anatomical dissections have always been looked upon with that horror with which they are now regarded in India.

I shall commence the concise strictures. which I have at present to offer on the subiect, with observing, that, though from the general flow advance of mankind in intellectual improvement, we ought to be extremely cautious of conceding too much even to Indian ingenuity; yet it cannot be denied, that, the mine of knowledge once forung, that curious and docile race ardently and vigorously pursued their investigations, and penetrated that mine to the profoundest depth their limited means of refearch would allow of. Hence, probably, a very few ages elapsed before the combination of a thousand incidental circumstances led them to become gradually acquainted with the two grand pillars of all genuine medicine, - anatomy and chemistry. The offering up of human victims to Cali, the fable goddess of India, and their blood in consequence profusely shed by the ancient Indians in the Naramedha facrifice, a practice forbidden the modern Brahmins, though fometimes practifed, even

at the present day, by the military tribes, more familiar to fanguinary institutions: that dreadful rite, I say, could not fail of making them speedily acquainted with the anatomy of the human body. Their having been anciently accustomed to these oblations, from their present horror of human and bestial saughter, which commenced with the avatar of Buddha, who forbade them under the severest penalties, was once strenuously denied; but more familiar acquaintance with the Sanscreet language, and their original institutions, obtained at Benares itself by learned Orientalists of our own nation, have placed the matter beyond all doubt; and the subject has been already amply canvassed in preceding volumes. It was on this account that I hefitated in speaking decisively when discoursing concerning their advance in anatomical science. But, if doubt should still remain. let him that hesitates attend to the RUDHIRADHYAYA, or fanguinary chapter, in the fifth volume of Afiatic Researches, translated verbatim, by Mr. Blaquiere from the Calica Purana. and he will not fail of being convinced of the addiction to this nefarious crime of the ancient, whatever may be the placid character

of the modern, Indian. No precepts can be conceived more express, nor indeed more horrible, than those which the text of this tremendous chapter enjoins.

"By a human facrifice, attended with the forms here laid down, Devi, the goddess Cali, is pleased one thousand years, and, by a facrifice of three men, one hundred thousand years. By human slesh, Camachya, Chandica, and Bhairava, who assume my shape, are pleased one thousand years. An oblation of blood, which has been rendered pure by holy texts, is equal to ambrosia; the head and slesh also afford much delight to the goddess Chandica. Let, therefore, the learned, when paying adoration to the goddess, offer blood and the head; and, when performing the sa-crifice to fire, make oblations of slesh.

"Let the performer of the facrifice be cautious never to offer bad flesh, as the head and blood are looked upon by themselves equal to ambrosia.

"The performance of the facrifice with a Chandrahafa, or Catri, (two weapons of the axe-kind,) is reckoned the best mode; and with a hatchet, or knife, or saw, or a sangcul, the second best; and the beheading with a

hoe, or Bhallac, (an instrument of the spade-kind,) the inferior mode.

- "Let not the learned use the axe before they have invoked it by holy texts, which have been mentioned heretofore, and framed by the learned.
- "Let the facrificer fay, Hrang Hring. Cali, Cali, O horrid-toothed goddess! eat, cut, destroy all the malignant, cut with this axe; bind, bind; seize, seize; drink blood; spheng, spheng; secure, secure. Salutations to Cali.
- "Let the face of the victim be turned towards the north, or else let the facrificer turn his own face to the north, and the victim's to the east. Having immolated the victim, let him without fail mix falt, &c. as beforementioned, with the blood.
- "The vessel in which the blood is to be presented is to be according to the circumstances of the offerer of gold, silver, copper, brass, or leaves sewed together, or of earth, or of tutenague, or of any of the species of wood used in sacrifices. Human blood must always be presented in a metallic or earthern vessel; and never, on any account, in a vessel made of leaves or similar substance."

Again, it is said, "Let a human victim be facrificed at a place of holy worship, or at a cemetery where dead bodies are buried. Let the oblation be performed in the part of the cemetery called Heruca, which has been already described, or at a temple of Camachya, or on a mountain. Now attend to the mode.

- "The cemetery represents me, and is called Bhairava; it has also a part called Tantranga: the cemetery must be divided into these two divisions, and a third called Heruca.
- "The human victim is to be immolated in the east division, which is facred to Bhairava; the head is to be presented in the south division, which is looked upon as the place of sculls sacred to Bhairavi; and the blood is to be presented in the west division, which is denominated Heruca.
- "Having immolated a human victim, with all the requilite ceremonies at a cemetery or holy place, let the facrificer be cautious not to cast eyes upon the victim.
- "On other occasions, also, let not the facrificer cast eyes upon the victim immolated, but present the head with eyes averted.

"The victim must be a person of good appearance, and be prepared by ablutions and requisite ceremonies, such as eating confecrated food the day before, and by abstinence from slesh and venery, and must be adorned with chaplets of flowers and besmeared with sandal-wood."*

The early addiction of the Indians to these fanguinary rites, these minute injunctions as to the mode of facrificing the human victims, and the auguries deduced from them, being thus fully demonstrated to have taken place from the Puranas, the books holden most facred among them next to the Vedas, to fay nothing of what they must infallibly have learned from the same conduct in regard to bestial facrifices; for the regulation of which, very minute and circumstantial precepts are given in the same chapter; - after these authentic statements. I fay, it is impossible to give credit to those affirm that their ancestors totally ignorant of the internal structure of the human body, and that a race, fo curious in their researches into natural history, were

^{*} Afiatic Researches, vol. v. p. 378.

unacquainted with those anatomical diffections which are so indispensably necessary in the judicious administration of internal medicine. The flint-stones, before-mentioned, with their extremely keen edges, might, in the infancy of anatomical science, be sufficient for every purpose of this kind; but under the next head it will be shewn that metallurgic operations, also, were in such early periods practised among them, that there was no necessity for their continuing to make use of those rude instruments in surgery beyond the first or fecond century after the deluge. In the preceding quotation, facrificing-instruments of the axe-kind, the batchet, the faw, and the spade, are repeatedly mentioned. These could not have been fabricated without the exertion of chemical science by the process of fire, and hence it is at least demonstrated that they must have been accustomed, at the early period when the Puranas were composed, to the method of fluxing metallic, as well as of compounding berbaceous, substances.

To place the subject in debate beyond the possibility of future dispute, I shall select a passage from the Essay on the Philosophy of Vol. VII.

the Indians, the last publicly delivered by the only person who has ever read, in the original, the fublime Vedas of India, the distant date of whose promulgation has already been ascertained. " In the Veda itself," says Sir William Jones, " I found, with affonishment, an entire Upanishad on the internal parts of the human body; with an enumeration of nerves, veins, and arteries: a description of the heart, spleen, and liver; and various disquisitions on the formation and growth of the fœtus."* This must be considered as absolutely decisive of the question; and all that is left us is extreme aftonishment. with the prefident, at the great and total change that has taken place in the manners and fentiments of a race, which, in all other respects, are as immutable as the laws of the Persians, their ancestors.

But though from the early use, among the Indians, of weapons fabricated of brass and iron, as recorded both by sacred and profane writers, and from the equally undoubted use of metallic instruments in surgery, it is indubitable, that, in the most

^{*} Afiatic Researches, vol. iv. p. 167.

ancient periods, that branch of chemical science was known to them which has relation to the fusion and compounding of metals. I think it scarcely credible that, in the early times to which I allude, they had advanced fo far in that science, as to apply preparations of the various metals to medicinal purposes. No proofs, at least, of any such fact, have as yet been exhibited, and the question, therefore, with respect to India at least, must remain undecided till the Brahmin books on the fubject have been more deeply investigated. On the other hand, we are unable to reconcile to reason or tradition the judgement pronounced by Le Clerc, and the authorities cited by that learned historian of this science, that nothing of this kind was known till so late a period as the age of Paracelfus. The contrary is evident from an infinite variety of passages scattered up and down in the medical works of the ancient Greek writers, which the learned Mr. Dutens has collected together under the head of Medical Chemistry, and to which I beg to refer the inquisitive reader.*

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^{*} Inquiry into the Learning of the Ancients, p. 243.

There remained enough, otherwise, to be done by the Oriental student; for, nature, as before observed, has stored India and its neighbouring territory with an infinite variety of the noblest natural productions that enrich the Materia Medica: and, for the discovery and trial of their virtues, as well as the extraction of their balfamic oils and effences, we are primarily indebted to the laborious investigation and patient toil of the ancient Brahmins. A fummary view of a portion only of her treafures of this kind will convince the reader of the truth of this remark. Her forests and gardens produce us, in high perfection, casfia, aloes, opium, rhubarb, the white and red faunders, faffron, turmeric, anacardium, the amomum, sesamum, assafœtida, benzoin, and camphor. The gums lac, benjamin, gamboge, myrrh, olibanum, sanguis draconis, bdellium, storax, and innumerable other refins, are also her tribute to the western world. Her mineral beds are fraught with the most precious ores and gems; her extensive shores abound with the richest pearls and are covered with the finest ambergris; her very animals yield us musk, civet, and the bezoars: her aromas and spices of every kind surpass enumeration:

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meration; the pepper, the ginger, the nutmegs, the cloves, the cardamoms, the cinnamon, the nardus Indicus, and other fragrant nards, which she matures in her bosom, and sends annually to Europe, to conquer, by effeminacy and luxury, the nations who have subdued her ingenious progeny by ruder weapons.

In what manner and to what particular cases the old Indian physicians applied all this immense treasure of medicinal roots and drugs we shall never fully know, till their ancient treatises on the subject shall have been effectually explored. But, as it is necessary to bring this prolonged discourse on medicine to an end, we shall conclude with taking a summary view, from authentic sources of information, of the principal diseases with which the Indians are afflicted, and their usual methods of cure as in practice at the present day, but most probably derived from very ancient sources of instruction.

On this subject it must be confessed, that, however exalted might have been the know-ledge of the ancient Indians, they have bequeathed a very slender portion of it to their descendants, who seem to practise physic, as

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they do astronomy, by a routine of which they do not understand the principles. It is this ignorance as to the theory, and gross absurdity as to the practice, of medicine, in the present race of Brahmins, indeed of all the Oriental nations, that has rendered European physicians so much in request at the court of the Indian and Mahomedan princes; that detained Gemelli fo long at the court of Jehan Ghir; and gave an opportunity to Bernier to write his interesting account of the life and actions of Aurungzeb, and the voluptuous retreat of the Indian emperors at Cashmere. This latter traveller, with Thevenot, Fryer, and Sonnerat, two of them physicians, and consequently able judges of the subject, will be my faithful guides in the course of that survey.

The account of Bernier, however, though a physician, is, I am forry to add, very superficial and unsatisfactory; it consists in the enumeration of a few short aphorisms, simple, indeed, and rational enough, but certainly not very profound or scientific. Thus, in a general way, he acquaints us, their books inculcate, "that one who is sick of a fever stands in no great need of nourishment; and that

that the main remedy of all fickness is abstinence; that nothing is worse for a diseased person than slesh broths, nor does any thing corrupt sooner in the stomach of a severish patient; and that no blood is to be taken away" (which slatly contradicts the assertion of their never using phlebotomy) "but in cases of great and urgent necessity, as in phrenitis, or inflammation of the chest, liver, and kidneys."*

Thevenot mentions two methods in general use among the Indians of curing the bite of venomous reptiles of a very extraordinary nature; the first is, holding a burning coal, as long and as close as possible, to the wound, which draws out the venom by degrees, and, what is very singular, the patient does not feel any great inconvenience from the heat during the time of the operation. The other remedy consists in the application of the Cobra, or snake, stone. Of this celebrated specific, the best are made in the city of Diu, and are composed of the roots of certain plants burnt to ashes, which ashes are mixed with a particular kind of earth, and then

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^{*} Bernier's Voyages to India, vol. iii. p. 165, London edition. 1672.

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burnt a fecond time. Of this composition, reduced into a paste, they form the Cobrastione of the size of a pigeon's egg. It is applied in case a person be bit by any kind of serpent or viper, or wounded by a poisoned arrow, in the following manner:—they first prick the wound with a needle till the blood flows, and then six the stone to it, which sticks sast, and remains there till it falls off of itself. It is afterwards put into woman's, or, if that cannot be had, into cow's, milk, where it purges itself of the poison; and if this be not done immediately the stone bursts.*

Dr. Fryer, who was ten years in India, and who, as a physician, was certainly a proper judge of such matters, speaks also of these snake-stones. He says, they are made by the Brahmins, and that they are a sure counterpoison to all deadly bites. If the stone adheres, it attracts the poison, and, put into milk, it recovers itself, leaving its virulency therein, which is discovered by its greenness.

[•] Voyage aux Indes Orient. vol. v. p. 318.

[†] Fryer's Travels, p. 33.

This author imputes to the vicissitudes of the climate all the variety of diseases suffered by the Indians. During the steady northern monsoon, their sibres are hardened against the usual diseases of the country. In the variable months, catarrh, glandular swellings of the throat, rheumatisms, and intermitting severs, are common among them. In the extreme heats they are afflicted with cholera morbus and violent inflammations of the eyes. In the rains, with dreadful fluxes, and disorders of the brain and the stomach: for the latter they eat HING, a fort of liquid assaying odour.

In agues, he fays, they use a powder composed of a preparation of native cinnabar, which is reckoned as infallible as the Peruvian bark among us.*

In lethargies they administer garlic and ginger in a menstruum of oil or butter. At present they use not the knife in scarification, but the rind of a certain caustic nut that burns the skin. The actual cautery is applied in vomiting, with looseness, and also in

^{*} Fryer's Travels, p 115

calentures. They abhor phlebotomy; but, when absolutely necessary, they make use of leeches, using them immoderately, and often putting on a hundred at once, which they have not skill to remove, and they adhere therefore till they are satiated, and then fall off of themselves, by which means the life of the exhausted patient is often exposed to the most imminent danger.* Their practice in fevers is not less pernicious; for, according to Dr. Fryer, they administer coolers till, with the flame of the disease, the vital heat is also nearly extinguished; obstinate chronical diseases are the fatal consequence. Dropsy, jaundice, and cachexies of every description, attack the patient and make the remainder of his life miserable. In fevers less violent they content themselves with administering, in abundance, the cooling fruits of the country. Thus the fruit of the Anana, or Indian pine-apple, on account of its peculiar yet pleasing acidity, mingled with a delicious flavour, is valued as a noble febrifuge: The refrigerating juice of the water-melon, the delicious mango, and the fruit of the stately

^{*} Fryer's Travels, p. 115.

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tamarind-tree, are all highly esteemed for the same excellent quality.*

For that most dreadful of diseases, but so common in Eastern countries, the elephantiasis, the ancient Indians sound out a sovereign cure in administering arsenic in considerable quantities. The genuine prescription is, happily for the curiosity of posterity, preserved in the Asiatic Researches, and is said to have been an old secret of the Hindoo physicians, who applied it also to the cure of cold and moist didempers, as the palsy, distortions of the face, relaxation of the nerves, and similar diseases: its efficacy too has been proved by long experience; and this is the method of preparing it:

"Take of white arfenic, fine and fresh, one tola; of picked black pepper six times as much; let both be well beaten at intervals, for four days successively, in an iron mortar, and then reduced to an impalpable powder in one of stone, with a stone pestle, and, thus completely levigated, a little water being mixed with them; make pills of them as large as tares or small pulse, and keep them dry in a shady place.

[·] Fryer's Travels, p. 118.

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"One of those pills must be swallowed morning and evening with some betel-leaf, or, in countries where betel is not at hand, with cold water. If the body be cleansed from soulness and obstructions by gentle cathartics and bleeding before the medicine is administered, the remedy will be the speedier."*

The next article in the same volume ought not to be omitted in this account of Indian medicine: it has relation to the bite of ferpents, particularly that most fatal one of the Cobra de Capello, and the demonstrated cure is from forty to fixty drops of volatile caustic alkali spirit diluted with water, or, if that be not at hand, a rather larger portion of eau de luce, which is to be had every where. The inventor of this valuable medicine is Mr. Williams, a Bengal practitioner. The cases fell under his perfonal observation; and, for his public communication of it, that gentleman deserves the thanks of every person, native and foreign, in the whole extent of India.

[·] Afiatic Researches, vol. ii. p. 149.

The arfenic pills above-mentioned are also faid, I presume from the proximity of that mineral to mercury, to be a fovereign cure for the Perfian fire, as they there call the lues venerea: and here I find it necessary to remark, that, upon whatever treatife, concerning the diseases of India, we cast our eyes. we are certain to read of the ravages of this fatal disorder, which seems to have reigned for immemorial ages in that country; and, owing to the unhappy rejection of European aid by the inhabitants, from superstitious motives, and a rooted prejudice in favour of their own absurd method of treatment, to have taken wide and deep root in it, and to have cut them off annually by thousands.

In proof of these rooted superstitions and obstinate prejudices of the Hindoos, just mentioned as the indubitable cause of such dreadful calamities to them, may be adduced the following instance inserted in the Sketches of Mr. Crauford, who writes from personal knowledge.

"One of the natives, who was employed in an eminent post at an English settlement, being prevailed on in a dangerous illness to receive a visit from an European doctor, it was found that, by long abstinence, which in sickness the Hindoos often carry to excess, the stomach would no longer retain any thing. The disorder being of a putrid kind, the doctor wished to give the bark in strong wine; but the Hindoo positively refused to take it, notwithstanding many arguments that were used both by the doctor and the governor who accompanied him, and who had a considerable degree of influence over the Hindoo. They promised that it should remain an inviolable secret; but he replied with great calmness, that he could not conceal it from himself, and a few days afterwards fell a victim to his perseverance."*

Most of the children of the inferior casts are said to come into the world with the virus of this dreadful malady latent in their blood, and the most terrible evils result from it in suture life. Medicines that can only palliate the symptoms, but have not efficacy to exterminate the seeds of it, are made use of, and the tortured patient lingers through a miserable life, and dies at last of the elephantiasis. The public institution of

^{*} Sketches of the Hindoos, p. 306.

⁺ Sonnerat, vol. ii. p. 146.

Dancing Girls, an authorized system of proftitution that reflects eternal dishonour on the policy of the country, has probably been the baneful source of this national calamity.

From the same satal causes, ignorance and superstition, added to a burning climate, the small-pox, when it appears, is said to spread terrible devastation through their great towns and villages. The principles of their religion sorbid the use of inoculation; they make no distinction in their treatment between the constuent and the refluent kind. Every thing is left to diet drinks and superstitious antidotes; the patient is sprinkled with the ashes of cow-dung; anointed with cocoa-nut oil; and finally bathed in cold water, which generally terminates his existence.*

Sonnerat records a fingular cure among them for the epilepsy, which is eating of rooks. In cutaneous disorders, which are supposed to proceed from worms, unguents and cataplasms are seldom applied, the omnipotent caustic removes at once the skin and the worm that corrodes it. For disorders produced by cold, the hottest in-

^{*} Sonnerat, vol. ii. p. 146.

ternal medicines are used; inflammation, convulsions, and death, ensue; and the evil dæmon is execrated for the sins of the unskilful physician. The poverty of their diet, especially of the inferior classes, while it preserves them from inflammatory diseases, induces those of a very different kind. The violent purgatives to which they constantly resort in all illness, from supposed obstructions, increase the malady, and the carcase of the putrid patient ejects worms upwards and downwards; his skin burns; his eyes are sparkling and humid; his tongue is torrid and often split; he grows delirious, and dies.

All the species of fluxes before described, with their concomitant symptoms, are enumerated by this author, with the addition of one of a sort more than usually fatal, which happened while he was in India, and carried off above sixty thousand people in Pondicherry and its neighbourhood.* He imputes it to perspiration suddenly obstructed by one or other of the thousand causes that so frequently produce it in India, by habits of reli-

[·] Sonnerat, vol. ii p. 142.

gion, sleeping in the open air, meagre nutriment, ablution in cold water after eating or exercise, &c. &c.

The quantity of butter eaten with his rice, by the abstemious Brahmin, not unfrequently brings on indigestions which terminate in sudden death; on the other hand, those casts which regale on meat, a nourishment too heavy for so hot a climate, are often the victims of indigestion, called in India mort de chien.

Some inflammatory fevers they have which are cured by diet-drinks made of the pounded root of the margofier, fomething fimilar to our bark, and preferred by them to that imported by us. The gout cannot be supposed common among them; but, when it attacks them, it is cured by the use of a powder in which brimstone is the principal ingredient. In the part of India, where our author refided, they cure the bite of the Cobra by an application known to Europeans by the name of Ointment of Madura, and likely enough to have been one of their oldest specifics against its poison. It is a mixture of different herbs and roots containing a great quantity of volatile alkali; and the principal ingre-VOL. VII. dient IJ

dient in it is the kernel of the pine-apple tree. It is a violent purgative, and emits a fætid odour like human excrement. They rub a portion into the wound, and make the patient swallow another portion. If early applied, it generally proves efficacious.*

Such is the extraordinary, but authentic, portrait of the medical practice of the Brahmins. I have entered as extensively into the subject as possible, because it is a very interesting one to European practitioners. We shall now attend to their CHEMISTRY, which will lead us a few steps farther in the inquiry; though to what extent they applied the preparations of the several metals to medicinal purposes can never be known, till their oldest Sanscreet treatises shall have been translated.

CHEMISTRY.

Those who, from the earliest periods, have been devoted to a superstitious veneration of the element of FIRE, those who gave to their

^{*} Sonnerat, vol. ii. p. 153.

pagodas the form of pyramids and cones, to imitate the folar beam, and on whose altars a facred flame for ever blazed, could scarcely fail of being intimately acquainted with its wonderful properties, which in fact were the fource of that admiration and reverence. It was their acquaintance with its active pervading principle and energy which induced them to idolize FIRE as the foul of the material world; its hallowed beam, their phyfical theology taught them, emaning from the folar orb, first gave animation and motion to universal nature; and, from some mutilated tradition of a better theology, they regarded fire as the great CHEMIST that was finally to dissolve the universe and reduce it to In fact, they conceived the orbs of heaven to be formed of a kind of ætherial fire, and that they floated in a circumambient luminous fluid, which they considered as a fifth element, and denominated the AKASS. have had frequent occasion to observe that their superstitious veneration for this element probably commenced, during their residence in Chaldaea, with the first corruption of the pure patriarchal theology; and, according to the

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Indian history,* devout pilgrims, as well in memorial of their origin as of this their primæval devotion, still refort to Hierapolis in Syria, and pay their devotions at the two JWALA-MUCHIS, or springs of Naptha, the one not far from the banks of the Tigris, the other on the slaming plain of Baku, on the borders of the distant Caspian Sea, where the priests of the sun watched night and day the never-dying slame, supposed to have been kindled by his own ray.

Of the powerful agency of FIRE, the Afiatics could scarcely avoid entertaining the most awful conceptions, since its tremendous effects were often too distinctly visible in that torrid climate, where the broad slashes of the tropical lightning fired their lostiest forests, and the globe of electric slame levelled their proudest temples with the dust. They also saw it in the bursting volcano that shook to the centre their mountains of broadest base, and filled whole provinces with desolation and dismay.

Observing with anxious and fearful attention the wonderful operations of nature by

^{*} Mr. Wilford on Egypt and the Nile, in Afiatic Researches, vol. iii. p. 297.

the process of fire, in the melted minerals that rolled in torrents down the fides of the flaming mountain, in their resistless course fweeping away every intervening object, or affimilating it with its own substance, the ancient inhabitants of Afia endeavoured to imitate her supreme analyzing power, and very early commenced the practice of chemistry. To what extent, indeed, that primitive race knew the art of decompounding and combining bodies by means of fire, it is impossible to ascertain; but, without being considerable adepts in this science, neither could Tubal Cain, - that Tubal Cain, whose high antiquity and whose resembling name plainly mark him for the Vulcan of Pagan mythology; for, they thought, and one might almost think with them, that the inventor of the science of chemistry could scarcely be less than a god, - have been the instructor of avery artificer in brass or iron; nor the Indian Visvacarma, the active substitute of Agni, the Hindoo god of fire, have forged the arms of the Devatas, those missile weapons of fire in the Puranas denominated AGNEE-ASTRA, and made use of in the Satya, or first age of the world. The use of fire-

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arms, in the earliest periods, opens a wide field for reflection, in many respects, since it proves that the Indians knew how to apply the salt-petre and sulphur vivum, with which their plains abound, to the purposes of war, and formed out of them a composition which, if not actual gunpowder, was of such a nature as gave to bodies a projectile motion. Mr. Halhed expressly denominates it gunpowder, and gives the following account of the invention in his presace to the Gentoo Code.

" It will, no doubt, strike the reader with wonder, to find a prohibition of fire-arms in records of fuch unfathomable antiquity; and he will probably hence renew the fuspicion which has long been deemed abfurd, that Alexander the Great did absolutely meet with fome weapons of that kind in India, as a passage in Quintus Curtius seems to ascertain. Gunpowder has been known in China, as well as in Hindostan, far beyond all periods of investigation. The word fire-arms is literally, in Sanscreet, Agnee-aster, a weapon of fire. They describe the first species of it to have been a kind of dart or arrow tipped with fire, and discharged upon the enemy from

from a bamboo. Among several extraordinary properties of this weapon, one was, that, after it had taken its flight, it divided into feveral separate darts or streams of flame. each of which took effect, and which, when once kindled, could not be extinguished; but this kind of Agnee-after is now loft. Cannon. in the Sanscreet idiom, is called Shet-Agnee. or the weapon that kills a hundred men at once: and the Puranas or histories ascribe the invention of these destructive engines to Visvacarma, their Vulcan, who is related to have forged all the weapons for the war which was maintained in the Satya Yug, between the Devatas and Affoors, (or the good and bad spirits,) for the space of one hundred vears."*

This quotation feems to prove that the natives of this country had both actually and immemorially the use of gunpowder, and the metallic instruments of death, brass, perhaps, or copper, employed in the offensive use of that destructive article: but, if the Agneeaster of ancient times bear any resemblance to the fire-rocket used in the modern wars of

^{*} Halhed's Gentoo Code, Preface, p 52.

India, it proves that the Indians had, in those early periods, the use of iron also, the extraction and fusion of which ore, and the preparation of it for use, are among the most complex and elaborate operations of chemistry. The fire-rocket is described, by a gentleman who perfonally examined them in India, " to confist of a tube of iron about eight inches long, and an inch and a half in diameter, closed at one end. It is filled in the fame manner as an ordinary sky-rocket, and fastened towards the end of a piece of bamboo, fcarcely as thick as a walking-cane, and about four feet long, which is pointed with iron: at the opposite end of the tube from the iron point, or that toward the head of the shaft, is the match. The man who uses it points the head of the shaft, that is shod with iron, at the object to which he means to direct it, and, fetting fire to the match, it goes off with great velocity. By the irregularity of its motion, it is difficult to be avoided; and fometimes acts with confiderable effest, especially among cavalry."*

^{*} Sketches of the Hindoos, p. 295.

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A modern author of much celebrity has very ingeniously attempted to prove that the ancients were actually acquainted, in very early periods, with the chemical process of making gunpowder, and instances the invention of Salmoneus, with which he is faid to have imitated the thunder and lightning of Jupiter, in proof of his affertion. What is, however, much more to our present purpose, he cites Themistius to prove that the Indian Brahmins encountered one another with thunder and lightning launched from an eminence;* and Philostratus in evidence, that, when attacked by their enemies, they did not leave their walls to fight them, but darted upon them missile weapons, in noise and effect resembling πρηστήρας και βρουτας, + lightning and thunder. By these weapons were evidently meant the fire-shaft, or rocket, described above; and to these we may add the artificial thunder and lightning used in their cavern-initiations.

No higher proof in time need, indeed, be adduced of the intimate acquaintance of the Indians with the penetrating and destructive

[•] Themislius, Oratio 27, p. 337.

[†] Philostrat. Vita Apollonii, lib. ii. cap 33.

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nature of fire than that exhibited in the chacra, with which they have armed their god Veelhnu, and with which he destroys the malignant Assors. It is a circular mass of fire, which, instinct with life, like the thunder-bolt of the Grecian Jove, when hurled from the hand of that deity, traverses the illimitable void, and exterminates his enemies where-soever concealed.*

The ancient mysteries generally abounded with allusions to subjects of a physical kind. The operations of nature in her most hidden recesses, particularly in forming ores, and the precious gems that lie hidden in the bosom of the earth, and in the maturing of which they thought the fun had a confiderable influence, were among the favourite subjects of their philosophical investigations. The Persians, in particular, who were THE ANCESTORS of the Indians, must have been well acquainted with metals; for, it is a circumstance not a little curious, and very much in favour of the hypothesis that assigns to Oriental chemistry a very high antiquity, 'that those learned Afiatics, in their mysterious rites, allotted

to the feven terrestrial metals the very same names by which they denominated the feven planets, and the same hieroglyphic characters at this day equally distinguish both.

It has been observed in a former volume of this work, that, by the subterraneous cave of Mithra, they meant to represent the mundane system; and that, in pursuance of this idea, they erected in that cave a high ladder, on the afcent of which were seven different gates, according with the number of the planets. The first gate was of lead, which was intended to mark the flow motion of the planet SATURN; the fecond gate was composed of tin, by which they shadowed out the brilliancy and foftness of VENUS; the third gate was of brass, which they imagined a just emblem of the folidity and durability of Jupi-TER; the fourth gate was of iron, by which Mercury was typified, because he is suited, like iron, to all forts of labours; the fifth gate confisted of a mixed mass, of which the heterogeneous composition, variableness, and irregularity, rendered it the fit emblem of MARS; the fixth gate was of fiver, exhibiting an apt fimilitude of the mild radiance of the silver EMPRESS OF THE NIGHT; and the feventh

feventh was of gold, a proper emblem of the Sun, the one being the king of metals, and the other being the fovereign of the sky.* We have also observed, that, on the losty concave dome of this splendid cave, the zodiacal asterisms were designated; and round their walls many astronomical and geometrical symbols were arranged in the most perfect symmetry, and placed at certain distances, which shadowed out the elements and climates of the world.*

The progressive advances of the candidate for initiation through the dreary and winding recesses of this subterraneous temple, immani magnitudine, had all a physical reference blended with mystic allusions to that theology, which was almost entirely founded on physics. The whole was a sublime allegory; a spiritual fort of chemistry. The passage of the body through the respective mundane elements was only typical of the soul's progress through various stages of purisication, as gold is tried in the furnace of the refiner. The utmost exertion of chemical science.

^{*} Celfus apud Origen contra Celfum, lib. iv.

Porphyry de Antro Nympharum, p. 256, edit. 1655.

known to them, must have been employed alternately to terrify and transport the bewildered aspirant. For want of better, I adopt the same, words which I used before, when describing these mysteries.

After having proceeded for some time through these gloomy adyta, the ground suddenly began to rock beneath his feet; the whole temple trembled; and strange and dreadful voices were heard through the midnight filence. To these succeeded other louder and more terrific noises resembling thunder; while quick and vivid flashes of lightning darted through the cavern, displaying to his view many ghastly fights and hideous spectres * At length, the profounder mysteries commenced; and now, arrived on the verge of death and initiation, every thing wears a dreadful aspect; it is all horror, trembling, and attonishment. An icy chilliness seizes his limbs; a copious dew, like the damp of real death, bathes his temples; he staggers, and his faculties begin to fail; when the scene is of a sudden changed, and

^{*} Hence it would appear, they well knew the doctrine of Newton, that " fulphureous fleams, abounding in the bowels of the earth, ferment with minerals, and fometimes take fire with fudden corruscation and dreadful explosion." — Newton's Optics.

the doors of the interior and splendidly illumined temple are thrown wide open. A miraculous and divine light discloses itself; and shining plains and flowery meadows open on all hands before him. Accessi confinium mortis, says Apuleius, et calcato Proserpinæ limine, per omnia vectus elementa remeavi; nocte medio vidi solem candido coruscantem lumine: - Arrived at the bourn of mortality. after having trod the gloomy threshold of Proferpine, I passed rapidly through all the furrounding elements; and faw the sun at midnight shining with MERIDIAN SPLEN-DOR.* These successive thunders and corrufcations; this blaze of glory, scarcely tolerable by the vifual organ; gay fmiling plains, and flowery meadows, arrayed in all the vivid colouring of nature; were the effect of the operations of chemistry in the most refined branches of the science, labouring to impress, with alternate effect, on the mind of the enthusiastic devotee, the gloomy superstitious horrors, and splendid celestial visions, fo well calculated to keep alive the ardour of the Sabian devotion.

^{*} Apuleii Metamorphosis, lib, ii. v. 1. p. 273; and Indian Antiquities, vol. ii. p. 326.

The reader may possibly object to this statement, that it rather concerns the Persian and Chaldæan system of superstition than the Indian; but, as I have throughout these volumes contended for the identity of the theological and philosophical doctrines of those three ancient nations, and particularly as the recorded descent of the Indians from the old Persians is so well authenticated in the Asiatic Refearches, I might on that ground fuffer the argument for that identity to rest; but there is a most curious, and, to my purpose, most important, passage in the Life of Apollonius by Philostratus, which will decidedly prove the congenial nature of their ideas on this subject, and I shall insert it without a comment: " Apollonius cum Jarcha Brachmane secreto philosophatus, muneris loco ab eo tulit annulos septem, TOTIDEM PLANETARUM DICTOS NOMINIBUS, quos fingulos gestaret per subjectos planetis dies; sc. ut annulum AUREUM gestaret die solis, ARGENTEUM die lunæ, FER-REUM die Martis, HYDRARGYRINUM die Mercurii, die Jovis STANNEUM, ÆNEUM die Veneris, et PLUMBEUM die Saturni, quod fingulis planetis singula respondeant METAL-LA."

· Leaving for the present these more distant speculations, let us attend to the gradual progress in metallurgic science of this fireadoring nation. Properly to cultivate the earth, and cause it to produce in adequate abundance the various kinds of grain, which formed the temperate banquet of the Indian, more durable and penetrating implements than the first simple ones of wood would soon be found necessary; and, to defend the property which industrious individuals might possess, against the assaults of men less honest and industrious, arms would be wanted. Both agricultural and warlike implements were, probably, during those primitive ages, fabricated of brass or copper. To reap the ripened grain, at least, a fickle of metal was required; and cymbals of brass and brazen sistra are expressly said, by Lucian, to have been employed in the mysterious rites of the Dea Syria, the prototype of the Ceres of Greece, in allusion to the clashing of the brazen implements used in husbandry, before mankind had become acquainted with the more difficult process of forging iron. Indeed brass could scarcely fail of anciently being in very common use in India, since the lapis calamina-

ris, from the fusion of which with copper that factitious metal is formed, is neither more nor less than the ore of Indian Zinc, of which the beautiful composition, called Tu-TENAGUE, next to filver in strength and beauty, has been immemorially formed into the most elegant vases and other domestic ornaments by the Oriental manufacturer. The heroes of Homer stalk in arms of burnished brass: the shield, the helmet, the cuirass, the greaves, were brass, and Herodotus informs us, that a nation very near to India, if they were not in reality Indians, the Massagetæ, had their axes, hatchets, spears, and even their horse-accoutrements, of the same metal.* Brass, too, was principally used in the mechanical operations of the more ancient Indians; and from them, or at least from the East, where mines were first explored and wrought, instruments of this metal were scattered over the western They are fometimes, at this day, found amidst the rubbish of old mines; and even those of Cornwall, when first re-opened after a lapfe of many ages, exhibited to the aftonished explorers the hammers, axes,

^{*} Herodotus, lib. i. p. 215.

chiffels, and other copper and brass tools of the ancient Phænician miners. In fact, the superior ductility and malleability of copper would naturally induce a race, ignorant of the deeper arcana of chemical science, to prefer it, even when iron was at length discovered, to that less yielding metal, the smelting and refining of which was attended with such infinitely greater labour. Modern experiments upon some remnants of antiquity of this kind have demonstrated that they possessed the knowledge of hardening copper, either by mixing alloy with it, or by some other means, so as to give it a firmness and solidity nearly approaching to iron.

In the old Indian sculptures and pictures, the Avatars, Creeshna and Ram, are generally portrayed, in combat with their gigantic enemies, armed with the battle-axe, or the bow and arrow; whence it may fairly be concluded that these were the most ancient kinds of armour used in Indian warfare. Carticeya, however, the Indian god of war, and the gigantic Ravan, are in the same pictures represented as bearing in their hundred arms, the expressive emblem of enormous strength, a dreadful display of every species of military weapon

weapon of offence, as fwords, spears, javelins, &c.* which proves that they also were in very early use among the military tribe, and were probably fabricated of iron; which is repeatedly mentioned as an article of great confumption and traffic in the Institutes of Menu. Without this metal, indeed, and that in its most improved state, when refined to STEEL, many of the Indian artists and manufacturers at that early period, and by that code considered as already arranged in dislinct casts, -I mean in particular the tribes of goldfmiths, jewellers, and engravers, -could not possibly have carried on their respective occupations, nor have cut in gems and metals those Sanscreet characters, which, engraved on the imperial fignets of Asia, we have been informed above, by Mr. Halhed, were fo anciently and generally diffused from the Indus to the Sea of China. For this, they must have had instruments of the nature of the drill, the graver, and the trepan, which, being necessarily formed of the purest and highest tempered steel, implies in the Indians a

previous

^{*} See the plate of the fixth Avatar in the Indian History, vol. ii. part 1.

previous knowledge and practical experience of the most arduous operations of metallurgic science.

In respect to that species of chemistry which has relation to the process of hardening argillaceous and other earths by fire, we cannot doubt but that it was fully known to a race famous in antiquity for the many elegant kinds of pottery and porcelain common among them, both for domestic ornament and use. From tradition, history, and the commercial annals of mankind, for nearly thirty centuries, we also know that they were able to extract, by infusion and other means, from earths, roots, and minerals, that variety of lovely and brilliant dyes, for which they have been immemorially celebrated; and, by diftillation and fermentation, all those rich oils and fragrant balfams which the vegetable kingdom fo abundantly produces in that luxurious garden of the Greater Asia.

"From the infatiable defire of riches," fays an old Sanscreet author, cited in Mr. Halhed's Preface, "I have digged beneath the earth; I have sought by fire to transmute the metals of the mountains."*

[#] Halhed's Gentoo Code, Preface, p. 29.

These are essential branches of chemical science; and, that they actually existed at this early period in Hindostan, every body will be convinced who attentively turns over the pages of Menu's Institutes in the chapters that have reference to their mechanical arts and vet unrivalled manufactures. In those pages we find them, as I have truly stated in my Differtation on the Commerce of this ancient people,* engraving on the hardest stones, and working in the most difficult metals; giving the most beautiful polish to the diamond, an art supposed not to be known till the 15th century; enchaing in gold, and working in ivory and ebony, with inimitable elegance. In weaving, spinning, and dying; in all the more ingenious devices appertaining to the respective occupations of the joiner, the cutler, the mason, the potter, and the japanner; in executing the most curious cabinet and filligree work in gold; in drawing birds, flowers, and fruits, from the book of nature with exquisite precision; in painting those beautiful chintzes annually brought into Europe, that glow with fuch a rich variety of colours, as brilliant as they are lasting; in the fabrication of those ornamental vases of agate and chrystal, inlaid with the richest gems, that constitute so large a portion of the splendid merchandize of India with the neighbouring empires of Asia; in short, in whatever requires an ingenious head or a ductile hand, what people on earth, in those remote or in these modern times, has ever vied with the Indians?

The selection of a very sew passages from those celebrated Institutes, since the Vedas are not yet accessible, will be sufficient to prove the truth of the preceding statement. With respect to their skill in exploring mines and sabricating metals, in enchasing in gold, in working in ivory, in piercing gems, and in dying, we read;

- "Day by day must the king, though engaged in forensic business, consider the great object of public measures, and inquire into the state of his carriages, elephants, horses, and cars, his constant revenues and necessary expenses, bis mines of precious metals, or gems, and his ticasury." Institutes, p. 243.
- " Of brilliant metals, of gems, and of every thing made with stone, (as pots or vascs,) the purification

purification ordained by the wife is with ashes, water, and earth." P. 137.

- "A golden vessel, not smeared, is cleansed with water only; and every thing produced in water, as coral-shells or pearls, and every stony substance, and a filver vessel, not enchased." Ibid.
- "Veisels of copper, iron, brass, pewter, tin, and lead, may be fitly cleansed with ashes, with acids, or with water." Ibid.
- "Utenfils made of *shells* or of *born*, of *bones* or of *ivory*, must be cleansed by him who knows the law, as mantles of *cshuma* are purified." Ibid.

In page 261, we find punishments ordained "for mixing impure with pure commodities, for piercing fine gems, as diamonds or rubies, and for boring pearls or inferior gems improperly."

" All woven cloth, dyed red, cloth made of Sana, of cshuma bark, and of wool, even though not dyed red, are prohibited the mercantile Brahmin." Ibid.

That the ancient Indians also knew how, by fermentation, to obtain ardent spirits is evident from the frequent prohibition of intoxicating liquors enjoined on the Brahmin tribe.

"Inebriating liquor may be considered as of three principal sorts; that extracted from dregs of sugar, that extracted from bruised rice, and that extracted from the flowers of the Madhuca: as one, so are all; they shall not be tasted by the chief of the twice-born." P. 320.

There are scarcely any of the mechanical branches of trade, especially those of a more coftly kind, in which a knowledge of chemistry is not more or less necessary; and these have ever flourished throughout India in earlier times and in a higher degree of perfection than in any other country of Asia. fhort, the philosopher wanted chemistry for experiment; the artist for practice, in a thoufand different ways. It opened the path of the former into the inmost recesses of nature, and taught him to imitate her various and wonderful power of refolving, feparating, combining, and transmuting, the elementary particles of matter that compose the vast globe which we inhabit. It enabled him to account for phænomena otherwise utterly inexplicable; he no longer beheld with fuper**fitious**

stitious horror the bursting volcano, the aurora borealis, and other terrific meteors; he
soon learned himself to roll the thunder and
launch the lightning of Jove; he stole fire
from heaven, and lighted up, in the laboratory, a creation of his own. The latter matured the projects and realized the hopes of
the philosopher. By practical chemistry he
extended the bounds of mechanic science, he
widened the field of commerce, and strengthened the bands of social intercourse.

A variety of proofs of this kind have been already adduced. A few more, and a general fummary of what has been observed on this head, shall now be added, and conclude this article.

Like the Phænicians, their rivals in whatever concerned trade and the arts, the Indians had arrived at confiderable excellence in making glass, vasa murrina, or murrhins, a species of elegant porcelain, much in request among the higher order of Romans, and artificial gems of various colours, which were often fraudulently imposed on strangers for genuine ones. They were also celebrated for their curious work in horn and ivory, and their being able to soften down those hard

fubstances to receive impressions of Avatars and other figures, their inlaying them with diffesent precious stones, and staining them with the most beautiful colours, are all processes intimately connected with this science. Various kinds of dyed leather are repeatedly mentioned in the Institutes, and therefore they must also have known the method of tanning and colouring that commodity; and we have already mentioned the vivid and durable colours, particularly the red and the blue, for which their cottons and filks have been fo famous in all ages; but these colours could not have been obtained, or so indelibly fixed, without a very high advance in chemistry. Their ability to obtain arrack and other intoxicating liquors by fermentation; their method of extracting fugar, by coction, from the cane; of oils, unguents, and effences, by distillation; of affaying and refining metals; of enamelling; of lacquering; of gilding; of varnishing; of japanning; of making the finest porcelain; of fabricating artificial fire-works and gunpowder; are all fo many direct proofs of what is here contended for. In short, trade, like agriculture, is indebted to chemistry for nearly all the various tools and utenfils used

in its innumerable branches; and, without it, the painter, the potter, the sculptor, the carver, and gilder, all the classes of working smiths, whether in gold, silver, copper, or iron, the tin-man, the pewterer, the plumber, the glazier, the distiller, (and all these trades are occasionally alluded to in the Institutes,) could not have pursued their respective occupations; those occupations, let it be still remembered, in which they were unchangeably fixed by the Indian legislator twelve or sourteen hundred years before Christ, when in most other countries CHEMISTRY was in a state of comparative infancy.

CHAPTER II.

HYDRAULICS. - The great Veneration paid by the Indians to the aquatic Element, in great Part the Refult of their physical Investigations into its Properties and Qualities. - The Obligation they were under of forming vast Reservoirs, in various Regions of Hindostan, remote from the great Rivers, and of railing by PUMPS and conveying by CANALS the Waters to their Rice-Grounds, necessarily rendered them acquainted with the Principles of this Science. - Their Manufactures, also, especially their chemical Processes in Medicine, Distilling, and Dying, required SIPHONS and other bydraulic Machines. - PNEUMATICS. -This Science intimately connected with their mythological Superstition. - INDRA, VAYOO, and their stormy Attendants, only the ATMOS-PHERIC PHENOMENA personified. — The great Vicissitudes of Weather that take Place during the different Seasons in so wast an Empire and so varied a Climate; one Region chilled with the Snows of Caucasus, and the other

other purched with equatorial Fervors: The tremendous Tornado and the pestilential Blast rendered the ancient Indians too well acquainted with those Phanomena. - Their metallurgic Operations required the Aid of vast Bellows for their Furnaces .- Their Mines could not have been explored and wrought without AIR-SHAFTS and other pneumatic Machines, nor without greatly enlarging their Knowledge in this Branch of Science, which they made useful in the Mysteries practifed in their subterraneous Caverns. - Probably not unacquainted with ELEC-TRICITY and MAGNETIC ATTRACTION. - PAINTING. - The exquisite Beauty of the Flowers and the brilliant Plumage of the Birds of Hindostan bad the Effect to make the Indians PAINTERS in very early Periods, as well as to give them a decided Superiority over all the ancient World in the vivid Luftre of their Dyes. - Their peculiar Method of PAINTING on COTTON described from Pliny and modern Authors. - A fhort History of their SILK and COTTON Works. - Their ancient Manufactures of Porce-LAIN and COLOURED GLASS. — Additional Observations on their Sculpture and Ar-CHITECTURE.

CHITECTURE. — ENGRAVING ON GEMS.

— The high Antiquity of this Art in India.

— The Kind of precious Stones principally felected for this Purpose, and the Devices engraved on them — The infinite Variety and Neatness of their Jewellery and Gold Work.

HYDRAULICS.

THE lotos, suspended aloft in a thousand temples of India and Egypt as the picturesque symbol of that humid principle, which the emanation of the eternal beam, piercing the darkett recesses of the chaotic waters, animated and rendered prolific, demonstrates the strong traditional veneration for the aquatic element, which descended down to the generations of Asia from the first speculative race of human philosophers. Their conceptions concerning the union of these two grand principles, and the consequent generation of all things, were sometimes expressed by slames issuing from the calix of the lotos, sculptured in form of a vase.

vafe, which indeed its natural shape greatly refembles; and, at others, that calix is encircled with a radiated crown of flames, just mounting above the burnished edge, to mark the superior energy of fire over water. This is the invariable meaning of the ancients. when either Brahma, Seeva, Osiris, or Horus, are portrayed fitting upon that facred plant: they are only emblems of the folar fire warming and invigorating the chaotic waters. This their constant and immemorial deification of the element of water, and their profound admiration of the astonishing qualities possessed by it of pervading, cherishing, and diffolving all things, the effect of philosophical investigation, must necessarily and naturally have induced an acquaintance with many branches of Hydraulic science.

Indeed the doctrine of Thales, that is, of the Ionian school, aquam esse initium rerum, may be fairly said to have slourished in its vigour in the earliest post-diluvian sages. From the same traditional sountains, whence they obtained their information, Moses also acquired his knowledge in regard to this wonderful element; and from the Mosaic and Egyptian school it was disfused among the philosophers

philosophers of Greece. From the extravagant honours which they paid to it, the first race of Indians feem to have confidered water as the universal stamen, or grand elementary matter, out of which, by the aid of the igneous principle, all things proceeded, and into which their physical researches shewed them they would all by putrefastion be again refolved. As it seemed to possess all the energetic properties of deity, they therefore exalted it to the rank of a divinity, and made it the object of their adorations. Now it can scarcely be credited, that those whose constant practice it was, (at least if we may form a judgement of their conduct by that of their prefent progeny in blood and religion,) with holy enthusiasm, to explore springs and consecrated rivers, and whom necessity compelled to form vast tanks, for the purposes of agriculture, in the scorched regions of India; that those who were accustomed to hew out magnificent baths for fuperstitious ablutions; and who, though perhaps ignorant of the cause, witneffed the alternate swell and depression of the waters of the ocean, attracted by that moon whose resplendent orb they adored with scarcely less fervour than her radiant para-VOL. VII. Y mour,

mour, especially those of her philosophic race, who were situated nearer the tropical regions, where the tides rife with an awful elevation, or on the gulphs of the Ganges and Indus, the bore (as it is called) of which latter river rifes often to the prodigious height of between twenty and thirty feet; and who had likewise surveyed and considered the stupendous column of suspended water in the phænomenon of the typhon, or water-spout, fo common in equatorial climates; could be entirely ignorant of the properties and laws of fluids. It is scarcely possible that those, who could wield with eafe and skill the ponderous instruments of the forge, wanted either wisdom or vigour to fabricate many of the implements used in this branch of science, although they might not possess the more powerful, stupendous, and complicated, engines of modern times.

If what has been said above, relative to the knowledge of the Indians on this subject, should appear extravagant, I may safely shelter myself from censure under the opinion of many learned men among the moderns, who, from what the sathers of human science have delivered down to posterity concerning the chaotic

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chaotic state of things, and the universal sluid in which the earthy particles were sufpended, have urged the high probability of the Newtonian doctrines, respecting gravity, sluidity, and centrifugal force, having been known in remotest antiquity, though afterwards, in the wreck of science and the revolution of empires, totally forgotten and lost, till revived again by that immortal philosopher. Indeed, we have seen this fact expressly afferted by Sir William Jones, in respect to the Indians, under the head of Astronomy.

The great distance of time, and the numerous revolutions that have befallen the Indian empire, added to the present deplorable ignorance of the Brahmins, leave us in doubt to what point in practice they carried their extended speculations in this branch of science; but that they were not merely theoretically acquainted with it must be evident from one or two observations with which I shall conclude this head of inquiry.

The great variety of artificial FOUNTAINS, fome of vast magnitude, which the ancient sovereigns and great rajahs of India were accustomed to have in those extensive gardens

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In which they took fuch high delight, and the refreshing coolness of which was necessary to mitigate the heat of that burning climate, affords very evident proof that they were well acquainted with this science. They had observed that clouds, breaking on the summits of mountains, discharged upon them their watery treasures, which, finking into the chinks and pores of the earth in those elevated regions, rushed forth with violence from their sides or at their base in the form of fprings and fountains. The imitative genius of the Indian marked her plastic power, enlarged the sphere of speculation, and filled with fountains and jets d'eau the delicious gardens of Delhi and Agra.

But, independently of these their accurate observations of nature and her operations, they could scarcely fail of learning the great principles of hydraulic science, before the Indian empire was formed, from their Assyrian ancestors; from that Bali, or Belus, who stands nearly at the head of their great solar dynasty of sovereigns, when they formed a part of the vast Iranian empire, which comprehended nearly a third of all Asia. In Assyria they could not fail of being well known,

known, as every body must be convinced who has read the account given by Diodorus* of the hanging gardens of Babylon, with their lofty terraces extending gradually up to the summit of the walls, which were two hundred feet in height, and at that stupendous elevation were refreshed with water forced up by immense engines from the bed of the Euphrates.

But a farther knowledge of hydraulics was necessary to the existence of a very large proportion of the Indian nation; and though, in the course of ages, they have, in respect to this as well as other sciences, sunk down into a very degrading state of ignorance, the danger of perishing by famine still preserves among them a portion of the science sufficient for the proper distribution of the waters, contained in their great tanks, over the champaign country, which is represented by M. Sonnerat as universally divided into parcels of about one hundred or one hundred and twenty yards square. In these that valued grain, the rice, which constitutes

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[•] Diod. Sic. lib. i. p. 98.

[†] Sonnerat's Voyages, vol. ii. p. 130.

the principal food of the Indians, is deposited and grows up to maturity in water only; but, as the greatest part of the lands is dry and sandy, hydraulic machines were necessary to elevate and abundantly distribute that water to the thirsty plant. These machines are, indeed, extremely simple in their fabrication, but they are effective; engravings of them may be seen in Sonnerat.

Another danger equally alarming, that of perishing by thirst, impended over them if they totally neglected this branch of philosophy: for, in regions remote from the great rivers, they only obtain water from wells funk to a vast depth in the sand and clay; and, from these, the necessary fluid could not be obtained except by pumps and other engines of various constructions and dimensions. They could not have constructed the canals and sluices necessary to convey the water from one district to another over vast sandy plains without fome proficiency in this science; nor could many of their mechanical operations, where fluids were concerned, as, for instance, when spirits and essential oils were to be extracted by distillation, be carried on without the use of fiphons or similar hydraulic vessels.

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PNEUMATICS.

Having discoursed thus largely concerning the adoration paid by the Indians, on account of their important utility to man and life, to the elements of fire and water, it would be improper to omit noticing their equal veneration for the æthereal element, which was fo great as to lead them to personify and exalt it into a deity under the name of Indra, the god of the firmament, a deity armed with all those formidable infignia, and invested with that unbounded empire over subject nature, which the Grecian mythologists have conferred on their Jupiter. The stormy prime minister of Indra, in the government of his wide aërial domain, is Vayoo, the god of the winds, who is expressively represented in their pictures as riding furiously, from one point of heaven to the other, on a swift antelope, and brandishing in his hand a sabre gleaming like lightning.

In fact, the immense vicissitudes of climate naturally to be expected in so extensive a country as India, and the tremendous irregularities

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of it which actually take place in certain diftricts of that country, are the principal fource of the great powers with which superstition has armed this imaginary divinity; for, Indra is not always the object of delight and love to the adoring Hindoo. If fometimes he descend, like the æthereal Jove of Greece, in genial showers, he is at other times attended by a ghastly train of deadly vapours and pestilential blasts. Those who live on the coast, and feel the foothing influence of air in agitation in the cool and balmy breeze that blows every morning from off the ocean upon the land, have great reason to exult in the blessings bestowed by Indra; while those again cannot avoid trembling at his power, who breathe the burning atmosphere, and contend with the drifted fands, of the scorched plains of Berar. The cerulean fields, that constitute the domains of the Indian Divespiter, are in truth the scene of their wildest and, I may add, their most gloomy mythology: they are fraught with objects which excite alternate transport and dismay. The comet portentoully blazing through a vast tract of illumined æther filled them with dire and inexpressible alaims; with fuperstitious reverence they marked

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marked the coruscations of the Aurora Borealis, or observed the boding meteor glide down the nocturnal heavens; and they heard the awful report made by its explosion, a-midst the dead silence of night, with unutterable terror.

It is scarcely possible, therefore, to conceive a nation, who thus accurately observed the phænomena of the heavens; for, their mythological legends concerning Indra and his ftormy prime minister are merely allusions to those phænomena; a nation, who from them drew presages the most important and interesting, to have been ignorant of the nature and properties of an element to which they had fo minutely attended, and confequently the principles of PNEUMATIC SCIENCE must in a degree have been known to them. They must have known that air, not less than water and fire, ferved to form, as it were, the grand cement and universal bond of nature, equally pervading and cherishing the whole animal and vegetable world. On the lofty mountains, whose summits the first race of Indians, escaped from the deluge, chose for their residence, Nature, the great chemist, as well as the fun's powerful beam, acting more immediately

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ately upon the atmosphere of equatorial regions, would foon teach them its wonderful quality of rarefaction and expansion; and its denfity and refistless power would not fail to be discovered at the period of the monsoons, those vast and ponderous columns of air in motion, which with irrefistible violence at one time ravaged the shores of the Peninsula, breaking down the strongest trees, and, like the hurricanes of the western world, sweeping every object before them; and which at others dispersed over the deep the rich cargoes of their various commerce, the produce of the filkworm, and the jewels of Golconda. Hence, perturbed and terrified, this superstitious race beheld the aërial phænomena with reverential horror: every cloud has its directing dæmon, and every gale its attendant dewtah. Superstition hears some perturbed spirit of the vasty deep raging in the midnight storm, and fees the angry deity launching over the Gauts the terrific and irrelistible shaft of the tropical lightning.

How far the first race of Indians might carry into experiment and practise the philosophical observations thus made by them on the operations of nature in that various clime, it is impossible to decide, till their philosophical books shall have been more accurately examined: but, that they were no strangers to the generative and invigorating influence of air. acting forcibly upon other elementary matter, and particularly on the watery element, is indubitably evident, from the universal traditionary doctrine which runs through all the cosmogonies of the East, that, at the beginning of time, the wind of God, or a wind from God, (for, by this perverted title they generally denominate the Hyeuma Aylor of Scripture,) violently agitated the waters of the chaos, and rendered them prolific. We have shown before, that the cosmogony of the Phænicians affirms the principle of the universe to have been a dark wind, turbulent and boundless; and, in the latter part of that description, we read, that the air shining with athereal light, by its fiery influence on the sea and earth, winds were begotten, and clouds, and great defluxions of the heavenly waters.

The ancient philosophers of India, like the stoics of Greece, who in all probability borrowed the doctrine from the Indian schools, which many of them visited, or obtained them through

through the channel of Egypt, imagined a fiftb element, formed of the more refined particles of igneous air, which they call the AKASS; that pure, transparent, luminous, æther, in which the planets and other celestial bodies roll. This subtile spirit, this penetrating fluid, they conceive to pervade all bodies, and to be the great principle of vitality and bond of all They talk concerning it with transport; but, amidst their raptures, totally different from the atheistical fabricators of the Phænician cosmogony, their greatest and most venerated philosophers of the VEDANTA school never forget to advert to the SUPREME CREATIVE SPIRIT of the universe from which it emaned, his august representative and powerful agent in the animation and direction of boundless worlds.

A knowledge of pneumatic science was also, in a great degree, necessary to the carrying on many of the mechanic arts for which the Indians were so famous; and if they were so far advanced in chemistry, in the earliest ages, as there is every reason to suppose they were, they must have required, for their surnaces, machines for collecting, compressing, and discharging, the current of air, in a body forci-

ble enough to promote their respective operations; and these must, in consequence, have been of various dimensions, from those that excited the intense slame, where the rugged ore of iron was sused, to the gentler blast necessary to perfect the exquisite work of the goldsmith and the enameller. The invention of the Bellows is, indeed, ascribed by Strabo to Anacharsis, the Scythian; but it is far more likely to have originated among a race represented, from all antiquity, to have been practised in metallurgic science, and devoted to those mechanic arts, which most wanted the assistance of that useful implement.

It was also utterly impossible that mines could be worked to any great depth or extent, without the assistance of what are called air-shafts, or certain tubes formed of wood or metal, by way of vent for the discharge of fiery damps and sulphureous vapours, and the conveyance of fresh air for respiration to the miner. In those mines they learned the nature of the various species of air, and, imitating what they there observed, were enabled, amid their mystic rites, to put

[•] Strabonis Geograph. lib. vii. p 209.

in practice those midnight phænomena which excited the wonder of the weak and the terror of the superstitious.

From the awful and terrific scenes exhibited in the MYSTERIES, from their acquaintance with the process of making gunpowder, and a variety of other circumstances that argue no superficial knowledge of the properties and effects of different kinds of air, it may reasonably be inferred that the old Indians were not entirely strangers to ELECTRICITY; for, in fact, that fine subtile spirit, pervading all things, that fifth element, that akals, as they term it, seems to be no other than what modern philosophers denominate the electric Indeed, Sir William Jones amply juftifies this supposition in his Treatise on the Philosophy of the Indians, declaring, that, without wishing to pluck a leaf from the neverfading laurels of Newton, he discovers, in Sanscreet authors, a great part of his admirable philosophy, especially those parts that relate to that subtile spirit which he suspected to lurk concealed, but not dormant, in all bodies, and to cause " attraction and repulsion; the emission, restection, and refraction, of light; ELECTRICITY, calefaction, fensation,

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and muscular motion; and that the Vedas abound with allusions to a force universally attractive, which they afcribe chiefly to the SUN, thence called Aditya, the ATTRACTOR." The mention of the doctrine of attraction naturally leads to reflections on that of the MAGNET, whose power to attract iron they must have well known, if, as there is every reason to presume, from their early voyages and their intimate connection in commerce with the Phænicians, they had the knowledge and experience of the compass-in navigation, an experience which they might have obtained from Noah himself, to whom the Deity probably imparted the fecret of its wonderful virtues, to guide the bark which contained the precious deposit of all living creatures over the waters of the boundless ocean. Its attractive force could have excited no great surprise in a race, who, in their beautiful manufactures and ornamental furniture, made fuch large use of the genuine ELECTRUM: that amber which has ever been in fuch high request in the cabinets and mufeums of Asia, and the attractive properties

^{*} Asiatic Researches, vol. iv. p. 177-

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of which were so well known, so much admired, and so often, in their writings, referred to by the Oriental as well as Grecian philosophers.

PAINTING.

From the regions of philosophy, where much was of necessity left to analogy and conjecture, we come to fact and experience; and are now to investigate the history of the progress of the ancient Indians in arts and manufactures, especially in one art for which they have ever been famous, and with great justice, so far as a nation utterly strangers to perspective could obtain celebrity in this line of exertion.

It is probable that the unrivalled beauty of the objects, animate and inanimate, in the fouthern district of India, the gaudy plumage of the birds, and the vivid colours of the plants and flowers, forcibly impressed upon the mind of the admiring Indian, first induced him to seize the pencil, and endeavour to imitate the strokes of nature. Those colours in the tropical regions, and under the beam of, a vertical maturing sun, are exalted to an uncommon height of brilliancy, and, after the rains especially, exhibit a scene the most picturesque and lovely that the eye can behold.

Though their pictures, in consequence of their ignorance of the method of distributing to advantage the lights and shadows of a piece, which the European artists call chiaroobscuro, are destitute of all relief; though also they pay very little attention to the rules of just proportion in delineating animal figures on the furface of filk and cotton, whatever care they might have taken in the sculptured images of human figures, in which they could scarcely be guilty of any gross offence against those rules; and though the laws of perspective, to necessary to produce effect in that ait, are, as just remarked, unattended to by the Indian artists; yet the delicate strokes of the Indian pencil, especially when employed in portraying the lovely plants and flowers of their country, added to the vivid and permanent glow of the colours they made use of, have, in every age, gained them the admiration of all nations, who have given convincing proof of that ad-Vol. VII. \mathbf{Z} miration.

miration, by fuffering India, in exchange for the commodities thus richly ornamented, to engross the bullion of the whole world.

Religion itself seems to have greatly promoted as well as fanctioned this art in India: for, we have feen, in the fifth volume of this work, that, from the very dawn of their religious institution, the various casts have been distinguished by different colours, it being the indispensable duty of the Brahmin, when in the morning he opens the portals of the pagoda for public worship, at their entrance, to mark the crowd of votaries on the forehead with the TILUK, a painted longitudinal or parallel line, either of vermilion or faffron, as they may happen to belong to the fect of Veeshnu or Seeva. Brahma. Veeshnu, and Seeva, are themselves painted of three distinct colours; and indeed all the deities in their pagodas are gaudily decorated in the same manner as were those of their forefathers, the Chaldmans, according to the imagined colours of their feven dii majores, the planetary train.

As I am bound by my proposals to compare the progress in scientific attainment of the Indians with that of their Asiatic and Egyptian neighbours,

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neighbours, I shall take that parallel survey previously to any particular discussion of the processes employed by the Indians in painting on filk, cotton, and other materials.

Plato is of opinion that the Egyptians had practifed painting during ten thousand years.* Pliny, fomewhat more moderate in his calculation, fixes the period of its commencement at fix thousand years+ before his time. What particular object either of these authors could have in view, by pretending thus accurately to determine the epoch in queftion, it is difficult to fay; but, in various preceding accounts of Egyptian remains, prefented to the reader from Pococke and Norden, we have feen, that, both on the roofs of the temples of the Thebais, and on the walls of the grottoes that border on the Nile, the colours and gilding, after the lapfe of nearly three thousand years, had preserved unimpaired their dazzling brilliancy. This fingular phænomenon may in part be explained by the clearness of the atmosphere in a country where scarcely a cloud obscures the horizon, and where very little rain falls, and

De Legibus, Dialog. 2. + Pliny Nat. Hist. p. 301.

partly in the superior excellence and durability of the colours themselves, which, in all likelihood, they obtained from India, or rather brought with them when their ancestors first emigrated from its shores: since the RED and the BLUE, the standard colours of that country, are particularly noticed by those travellers as the predominant ones.* Those celebrated writers of antiquity, therefore, by fuch strong expressions, could only have meant to deliver it as their opinion, that, for the depth and freshness of the colours, they were well calculated to have lasted during those extended periods. To be convinced, indeed, of that superior excellence, we need only attentively examine the hieroglyphic painting on the mummies in the British Museum, which cannot be of a date greatly inferior to three thousand years; for, both the gilding on the face of the one, and the pictured imagery on the other, are as fresh as if not above a century old.

If we cast our eye back towards Assyria, in the temple of Belus, as described by Diodorus, we shall find a very early and asto-

Lucis, vol. i. p. 99. Pococke, vol. i. p. 199. Bruce's Travels, vol. i. p. 125.

nishing specimen of this art in Asia. The hand of the painter had decorated the walls and the cieling with emblematical designs allufive to the birth of nature and the first principles of things: fome of the figures, like those of India, combining in one androginous body the two fexes, an undoubted perversion of that text, male and female created be them; and others being compounded of the parts of man and beaft. This marked refemblance in the fymbolical paintings of the two nations affords another striking instance of the truth of the grand pervading argument of these volumes, founded on the basis of Scripture, that Chaldæa (not Scythia, as Bailly contends) was the parent country of the Indians as well as of the whole human race. Let it not be forgotten that they could not have formed these vivid colours, or fixed them so immutably, without a very confiderable advance in chemical science. The figures in these pieces of imagery were doubtless very rudely defigned and ill proportioned, fuch as might be naturally expected in the infancy of science; but the energy of the expression and the lustre of the colours are not affected by this concession.

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A farther evidence of the progress of the Affyrians in this art is afforded in the paintings which are recorded by the same author to have decorated the walls of the magnificent castle and palace, afterwards built, by Semiramis, at Babylon, on which were painted, to the life, all the kinds of animals in their natural colours: and, as these colours are expressly said by Diodorus to have been laid on the bricks, when newly made, and afterwards burnt in, it shews that they understood the art of working in ENAMEL. We must not wonder, therefore, to find the Indians, in a few ages after, excelling in this kind of work as well as in the manufacture of the finest porcelain.

With respect to Persia, I consider what in preceding volumes has been related concerning the splendid decorations of the roof of the cave of Mithra, the blue vault spangled with stars of gold, the zodiacal constellations which emblazoned the walls, and the animals of that zodiac, all in their natural colours, as alone affording very ample proof of their advance in this art. That remarkable theological symbol, also, which they used in those caverns, the ladder, with the seven gates

named from the feven metals, ascending to heaven, may ferve to prove that they knew fufficient of chemistry, even at that early period, to exalt and to fix those colours. Hence the Persian works in embroidery, their rich tapestries, and carpets of flowered filk, were in not less high request through all antiquity than the painted cotton and fine linen, or findon, of India. Before I quit this subject, I cannot help remarking the striking similarity between the ladder that reached to heaven, in Abraham's vision, and this symbolic ladder of the Persian magi. Terah, the father of Abraham, must have been skilled in metallurgic science; for, he was a maker of TE-RAPHIM, i. e. of idols cast in brass or copper, under the aspect of certain planets. Either, then, Abraham, feizing this idea of the magi, fanctioned a fymbol, which was only a harmless, but expressive, emblem of the gradual ascension to heaven of the purified foul, in the immortality of which the Persians believed; or, what I own is more probable, the Pagans from his dream caught the image, and introduced it into the mysterious rites of their degraded fuperstition. At all events, the fact proves the high antiquity of the symbolical allusion,

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and not less of their chemical knowledge, fince Abraham flourished near two thousand years before Christ.

To return to the Indians; and to confider, first, their method and the materials used in painting on cotton. The more pure from mixture, the more lively and beautiful, though not more permanent, are faid to be the colours. In their first efforts to excel in this line, the Indians probably used only the fimple expressed juice of flowers and shrubs, the most vivid they could select. earths of various colours, as ochre, the yellow and the red, might afterwards be employed; and, lastly, as they advanced in chemical knowledge, minerals lent their aid to exalt their tints, to give them stability, and increase their variety. The two prevailing colours on the filks and cottons imported from India are the deep blue and the bright red; and the basis of these is well known to be indigo and gum-lac. Indigo is formed from the leaves of a plant, which grows about two feet high, called Indicum by the ancients, from the river Indus, down which it was brought from Lahore, of which city formerly it was the staple commodity. Its native appellation

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pellation is NILI, literally BLUE. The finest fort is however cultivated about Biana and Agra, and the colouring substance is the fecula, or dregs, made by means of water and oil-olive out of those leaves. It is brought to us in cakes of so intense a blue as to appear almost black; in consequence of which, when employed by the painters, it is obliged to be ground up with or it could not be used with effect. fpecies which is brought from the West Indies is of inferior fineness to what is imported from the East; for, it is made of the whole plant, stalk, and leaf, macerated together, and confequently has many impurities blended with it. The West-Indian species is, therefore, only used in dying, while the finer forts of indigo are still used by painters both in Asia and Europe. To render indigo in this country totally foluble for the purpose of dying, it requires an equal quantity of fixed alcaline falt. On digesting this with a gentle heat, the matter first appears copper-coloured, then of a deep green. The fubstance dipped in it comes out perfectly green; but, when exposed to the air, almost instantly changes to a fine blue.

The gum-lac, or LACCA of the ancients, has been mistaken for a vegetable production. but is in fact an animal substance, somewhat of the nature of cochineal, and is the production of an infect, refembling a bee, which deposits this glutinous sediment on the branches of certain trees, adhering to which it is brought to us, and thence bears among commercial men the technical name of flicklac. The colour is obtained by fimply boiling the stick-lac in water, then filtering the decoction, and evaporating the superfluous With these two colours, but humidity. not these only, fince India affords innumerable other vegetable as well as mineral substances adapted to the purpose, are the beautiful callicoes produced in her looms, painted or stained; and, though the ingenuity of European artists, with the aid of highly improved chemistry, have, in the place of these beautiful and durable colours, invented others possibly better adapted to painting in its prefent advanced stage of excellence, when the gradation of light and shade in pictures is to be so distinctly marked, yet none have hitherto rivalled those of India in united brilliancy and permanency; and, could the genuine Oriental

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Oriental indigo and lac, in their purest state, be obtained, they would perhaps still prefer the former to the best ultramarine and Prusfian blue, and the latter to even vermilion. carmine, and all the factitious lacs in the whole class of red colours. In the practice of the Indian artist, however, there is no viciffitude; the mode of painting and dying used twenty centuries ago, when Greece and Rome exchanged their hoarded bullion for her productions, still prevails; the cottons are prepared by some chemical process, unknown in Europe, to receive the various colours intended to be impressed either by the pencil or in the vat, and they retain them, while the fubstance on which they are impressed exists, with little alteration.

To be more particular in regard to their mode of painting the cottons in India. M. Sonnerat, after confirming what has been just observed concerning the brilliancy of the colours being heightened by some previous preparation, and the quality of the water in which the linen is whitened, adds, "When the outline is drawn, the linen receives the first washing; an ordinary workman then extends it on the ground, and, sitting down, puts on the

the principal colour. After a fecond washing, a more skilful artist extends the cloth on a small narrow table, and marks the shades. Their pencils are made of a piece of BAMBOO, pointed and fplit; an inch above the point is a cushion of wool, to retain the colours, which the artist presses to make the liquid defcend the length of the reed."* In the dying of cottons of different colours, an art practifed by ancient as well as modern Indians, a still greater proficiency in chemistry was necessary to fix the various tints. In painting these cloths they undoubtedly purfued a process somewhat fimilar to the Egyptians, fo minutely defcribed by Pliny: after having drawn the outlines of their defign upon the piece of linen, they filled each compartment of it with different forts of gums, proper to absorb the various colours; fo that none of them could be diffinguished from the whiteness of the cloth: then they dipped it for a moment in a cauldron, full of boiling liquor prepared for that purpose, and drew it thence painted in all the colours they intended. And, what was very remarkable, the colours neither decayed by

^{*} Sonnerat's Voyages, vol. ii. p. 122.

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time nor moved in the washing, the caustic impregnating the liquor wherein it was dipped having, during the immersion, penetrated and fixed every colour intimately through the whole contexture of the cloth.* Thus was the variegated veil of Ilis manufactured; thus were the linens that folded the Egyptian mummies stained; and thus only could the chintzes of India receive their heautiful and varied dies. De Pauw afferts, that, with the Egyptians, only one dark dye was used; and, by the aid of acids and alkali, the cloth received three or four different tints. It was neceffary, he adds, to trace previously all the figures with a feather or a pencil, that the caustic and alkaline liquids might be distributed exactly on the places where they were intended to produce effect.+

How very early the ancients were acquainted with the art of extracting colours from vegetables, and applied them in dying, may be learned from Genesis, where it is said, that, to distinguish the first-born child of Tamar,

^{*} Plinii Nat. Hift. lib. xxxv. cap 11. fest. 42.

[†] De Pauw's Problemeal Reflections on the Egyptians and Chinese, vol. i. p 20%.

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the midwife tied a scarlet thread about its arm.*
This, it will be observed, was in the eighteenth century before Christ; and in the time of Moses, two or three centuries after, we read in the following passage not only of the great progress of the ancients in the art of dying, but in several others intimately connected with the subject of these Dissertations.

And this is the offering which ye shall take of them; gold, and filver, and brass,

And blue, and purple, and scarlet, and fine linen, and goats' bair,

And rams' skins dyed red, and badgers' skins, and shittim-wood,

Oil for the light, spices for anointing oil and for sweet incense,

Onyx-stones, and stones to be set in the ephod and in the breast-plate.+

At the same time how very samiliarly the ancients must have been acquainted with some chemical process for permanently fixing colours is evident from Arrian, who relates, that, amidst other spoil found at Susa by Alexander, were five thousand quintals of Hermione pur-

^{*} Genesis, cap. xxxv. v. 28.

⁺ Exodus, cap. xxv. v. 3-7.

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ple, which exceeded that of Tyre in beauty, and had been hoarded up there by the Persian sovereigns during the space of one hundred and ninety years, but the colour of which was as fresh and beautiful as if just come from the dyer.

Thus far have we considered the progress of the ancient Indians in the art of painting on cotton: their filks were probably enriched with the same splendid colours, in a way as nearly fimilar as their different texture would allow. But as these rich silks and these beautiful cottons have fo immemorially formed the staple commodity of the trade carried on between India and Europe, a concile account of the origin and manufacture of both is, in some degree, indispensable in a work of this kind, and will, probably, be not difpleasing to the reader: — and, in the first place, concerning the fabrication of cotton, called Goffypium by the Romans, the more immediate subject of our inquiry.

Of the vegetable that produces this useful commodity, there are several varieties, from the creeping shrub to the losty tree; but that, from which the finest and most valuable cotton is produced, is a plant, of moderate size,

growing

growing abundantly, and with little assistance from culture, in Bengal and on the coast of Coromandel. After producing very beautiful flowers, it is loaded with a fruit as large as a walnut, whose external coat is entirely black. When completely ripe, it opens of itself, and discovers a downy substance, extremely white, which is the cotton enclosed in oval capsules. When gathered, the cotton is, in some places, thrown upon a floor and threshed, in order that it may be separated from the black feeds and hufks that enclosed it. In other places, to separate the cotton from the feeds, they use little machines, which being played by the motion of a wheel, the cotton falls on one fide and the feed on the other. When thus feparated, the operation of carding takes place, which the authentic Sonnerat, who wrote from what he faw in India, thus describes. "The machine to card cotton is fabricated with great simplicity; it is composed of a piece of wood fix or seven feet long. At each extremity a catgut string is tied, which, on touching, forms a found, on which account it is called violon. The violon is suspended by a string, from the string of a bow, fastened to the ceiling. The workman, with one hand, holds the violon in the middle; and with the other, by means of a piece of wood which has a pad at the end of it, briskly stretches the catgut, which, flying back, beats the cotton, takes it up with force, swells it, separates the dust, and renders it proper to be spun. The elasticity of the bow which holds the violon makes it very easy for the workman to move it from one end to the other over the heap of cotton which he is beating."*

The next stage is the spinning of the material, and, in this process, the same simplicity of operation and instruments is again conspicuous; for, according to the same author, the apparatus of the weaver "consists only of two rollers, placed on sour pieces of wood, sixed in the earth, under the shade of some large tree; of two sticks, which traverse the warp, and are supported at each of the extremities, the one by two strings, sastened to the tree under which the loom is placed, and the other by two other strings, tied to the workman's feet, which gives him a facility of removing the threads of the warp, to throw

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^{*} Sonnerat's Voyages, vol. if. p. 134. Calcutta edit.

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the woof."* Mr. Crauford tells us, that the fine muslins are woven within doors, the threads being too delicate to be exposed to the agitation of the air; but that it is by no means uncommon to see whole groves full of looms, employed in weaving the coarser cloths.+

Finally, to complete the interesting authenticated account of this branch of manufacture, in a still more recent publication, just come to my hand, the process of preparing it is thus detailed. "After the cotton has been carded, it is fpun out into such delicate threads, that a piece of cotton cloth twenty yards in length may almost be concealed in the hollow of both hands. Most of these pieces of cloth are twice washed; others remain as they come from the loom, and are dipped in cocoa-nut oil, in order that they may be longer preserved. It is customary also to draw them through cangi, or ricewater, that they may acquire more fmoothness and body. The cangi is sometimes applied to cotton articles in fo ingenious

^{*} Sonnerat's Voyages, vol. ii. p. 128. Calcutta edit.

⁺ Sketches, p. 328.

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a manner that purchasers are often deceived, and imagine the cloth to be much stronger than it really is; for, as foon as it is washed, the cangi vanishes, and the cloth appears quite flight and thin.

"There are reckoned to be no less than twenty-two different kinds of cotton articles manufactured in India, without including mussin or coloured stuffs. The latter are not, as in Europe, printed by means of wooden blocks, but painted with a brush made of the fibres of the rind of the cocoa-nut, (that is, in Malabar.) which, when beat, approaches near to horse-hair, becomes very elastic, and can be formed into any shape the painter chooses. The colours employed are indigo, the leaves of which plant yield that beautiful dark blue with which the Indian chintzes. coverlets, tappisendis, and other articles, are painted, and which never lofes the finallest shade of its beauty. Also terra mirita, called Curcuma, or Indian fastron, a plant which dyes yellow; and, in the last place, gum lac, together with some flowers, roots, and fruits, which are used to dye red. With these few pigments, which are applied fometimes fingly, and sometimes mixed, the Indians produce on their

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their cotton cloths that admirable and beautiful painting which exceeds every thing of the kind exhibited in Europe.

- "The French, English, and Dutch, have endeavoured to imitate these articles; but, notwithstanding all their labour and art, they have never yet been able either to produce these colours from the vegetable kingdom, or to attain to the same sineness in their cloth. No person in Turkey, Persia, or Europe, has yet imitated the Betille,* made at Masulipatan, and known under the name of Organdi. The manufacturing of this cloth, which was known in the time of Job, the painting of it, and the preparation of the colours, give employment in India to male and semale, young and old.
- "It may with truth be afferted, that, in spinning, weaving, and dying, the Indians excel all other nations in the world." +

Thus, adds the judicious M. Sonnerat, we fee that, in India, the hand, and two or three simple utensils, perfect works in which we make use of a hundred. In this

^{* &}quot; A certain kind of white East-Indian chintz."

[†] March, 1800. A voyage to the East Indies by the Missionary Bartolomeo, p. 397-399.

respect.

respect, the Indian appears the most distant from the European. We admire the industry of the savage Zealander, who, with a piece of stone sormed like a hatchet, makes his boats, and completes all his joiners work. We are surprised when told that those beautiful muslins, so much sought after, are made on looms composed of sour pieces of wood fixed on the ground; but we do not restect, that, when our ancestors inhabited forests and lived on acorns, they worked with equal simplicity.*

With respect to the mode of dying these cottons thus simply wove and the substances used in their dyes, I am able to add little more than what has been previously mentioned; and notwithstanding what has been urged by Father Bartolomeo, it is by no means clear that the Indians do not possess, traditionally handed down to them from their ancestors, some secrets relative to this subject which they have not imparted to foreigners. By means of the commerce which they anciently carried on with the Phænicians they might have learned those secrets; for it

^{*} Voyages, vol. ii. p. 126. Idem edit.

has been suspected that the TIN which they so abundantly imported from the Cassiterides, or British isles, was made useful in their famous purple, and that they greatly exalted and fixed the colour by folutions of that metal in the dying materials.* What was really known to the Romans concerning the mode of dying the Tyrian purple has been very minutely detailed by Pliny, who informs us, that after having procured from the MUREX. or purple-fish, a quantity of the colour sufficient for the purpose, they mixed it with falt, in which condition it remained during three days. To eight gallons of water they then added one hundred and fifty pounds of colour, which they boiled over a gentle fire, skimming the surface of the liquor from time to time, and occasionally dipping in it a lock of wool to mark the progress to maturity of the materia tinctoria. In about five hours it became perfectly clear, bright, and fit for use.+ The prepared wool was then steeped in the dye five hours; it was then taken out, dried, carded, and again

^{*} See Piyce's Mineralogia Comubiensis, p. 17.

⁺ Plinii Nat. Hift. lib. ix. cap. 38.

foaked in the vat; and, being once more dried, was delivered to the manufacturer to be fpun and wrought into cloth. This was the celebrated Διβαφα, or double-dyed Tyrian purple, a pound of which, we are informed by the same author, was valued, in Rome, at a thousand denarii, or upwards of thirty-two pounds of our money.* Whether the Tyrians, however, were or were not accustomed to use solutions of the metals for this purpole, it has been observed by a good judge in these matters, as a thing extremely probable at least, that the Indians of the prefent day, to impart the fine, bright, and durable colours to their calicoes and chintzes, make use of metalline solutions, fince some of those stained calicoes having been kept for forty or fifty years, the bright colours have been observed to eat out the cloth, exactly in the fame manner as the corrofive acid spirits, which dissolve metals, are found to do; and hence he concludes that it would be attaining to a high excellence if European artists, in painting and staining, could prepare the finest colours without employing

[•] Plinii, Nat. Hist. lib. ix. cap. 39.

either acid or alkaline salts, which are generally apt to prey upon the cloth, or other substance, stained with them.*

But, leaving the region of ingenious conjecture, we come, in the fecond place, to confider the still more curious manufacture of silk by the Indian mechanic, a manufacture for which they were as immemorially famous as for their admirable Sindon.

The little animal, the BOMBYX, that produces this delicate thread, is scarcely less a wonder in the world of natural history than its production formerly was in the commercial world. The body of this insect, a species of the phalæna, is composed of a great number of elastic annuli, closely united or rather interwoven with one another, and its heart, or rather a feries of numerous hearts connected together, extends the whole length of its body. The beating of this chain of hearts, or rather, to speak more philosophically, the motion of fystole and diastole, may be very distinctly perceived; and to observe the manner in which the vital fluid passes from one to the other forms a very curious and in-

Dictionary of Trade and Commerce; article Calico.

teresting spectacle. They were doubtless intended to accelerate the circulation of the fluids through the body. In the cavities of the belly, adjoining to the ventricle, the microscope discovers an infinite number of small vessels, forming a long bag or canal, in which is deposited the glutinous liquid whence the filk is formed, and these vessels communicating by a thousand winding meanders with the mouth, the little creature is enabled thereby to collect together and discharge at pleasure their contained fluids, which are hardened by the air into that delicate fort of fibre of which the web or ball confifts. little ball is the last effort of the expiring infect, whose short period, at least in that state of its existence, is a year, and it is fabricated at the expense of its being, as a worm; for, having formed its nidus, it becomes metamorphosed into an aurelia, and continues in that state without any signs of life or motion, till in a few days, if not destroyed, as they generally are to prevent the ball being injured, it becomes a butterfly, and makes its way out of its filken fepulchre, in which it lay as it were interred, into fields of æther. These balls, when taken from the mulberry-trees from which

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which they are suspended, are generally of the fize of a pigeon's egg, are of a yellow colour, of an admirable construction, and are said to be composed of threads spun out, by the labour of the indefatigable architect, of many hundred yards in length.

Having thus described the curious animal from which this valuable article of Eastern commerce is produced, we come to the consideration of the commodity itself, the mode of its sabrication by the Indian artist, and other interesting matters connected with its history.

Silk derives its Latin name of Sericum, from the Seres, a nation of northern Asia, by whom were doubtless intended the Chinese; but of the history of the commodity itself, or of the people who manufactured it, the Romans seem to have been alike ignorant. Some of them considered it as the white down growing on the leaves of a certain Eastern tree; while others thought that it was produced from the entrails of a kind of spider, which they denominated ser; but all had very confused notions relative to its origin and fabrication. The small quantity of silk then produced by Serica was probably brought

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by caravans, over the deferts, to the more western marts of Asia, and thence diffused among its luxurious fovereigns and nobles; for, in those early periods, it was only appropriated to the highest orders of fociety. I cannot, however, help being of opinion, that Serica was neither the original country whence filk was brought, nor that in which it was then most abundantly produced. The general principle on which this book proceeds leads to a different conclusion, and India appears to be the parent country of that valuable manufacture. How early, indeed, both the occupations above mentioned of cotton and filk weaving must have commenced in India is evident from this circumstance, that in the important account of Hindoo classes, from Sanscreet authorities, in the fifth volume of Asiatic Researches, express mention is made of the tribe of weavers, under the title of TANTRAVAYA, in the original grand division of the Indian nation by Menu. The author justly remarks, that "the tribes of Pundraca, jeeders of filk-worms, and PATTASUTRACARA, or twisters of filk, deserve particular notice; because it has been afferted, that filk was the

the produce of China alone, until the reigh of the Greek emperor Justinian, and that the laws of China jealously guarded the exclusive production."* The frequent mention of filk, however, in the Institutes, and other the most ancient Sanscreet books, (even according to the confession of this author,) does, in my opinion, go very far to prove the function antiquity of this branch of manufacture among the Indians, from whom the Chinese, when they emigrated, carried away with them the rudiments and utenfils, as they did of many others. It was, indeed, impossible from the nature of the country, interfected with rivers and abounding with marshes, that China could have been inhabited and cultivated in earlier periods after the deluge than Persia and India, (famous in all periods for filk and brocades,) and the invention is therefore here, I trust, justly referred to the most ancient settlers. The region about Serbind in the foobah of Delhi, a soobah mentioned in the Ayeen Akbery as abounding in filk-worms,+ was probably the

^{*} Afiatic Researches, vol. v. p. 62.

[†] Ayeen Akbery, vol. ii. p. 106.

country where the first silk-manufactories were established, and must consequently be the Serinda whence, Procopius informs us, silk was brought in the time of Justinian.

The first step taken to prepare the silk for the manufacture is to clear it of the gummy substance which adheres to it, and which is done by throwing the balls into a cauldron of boiling water, which relaxes and purifies it; and then winding and reeling it off, as it is termed, into skeins on proper frames, which are alike simple with those on which they card and spin the cotton threads, and are used with similar dexterity by the pliant and rapid fingers of the Indian artist. It is then bleached, or blanched, by being repeatedly steeped in the lees of the burnt athes of certain Indian plants, together with those of soap, mixed with a faull portion of indigo, which gives the bluish cast always observed in white silks. The throwster then performs his task by reiterated twiftings of the threads; after which it is configned to the weaver to be formed into vests, sashes, and other ornamental fabrics for apparel and household-furniture.

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The process of dying the filk commences with a fecond decoction, and fcouring of the fubstance again with soap-lees; after which it is steeped in alum-water, preparatory to receiving the various colours which that falt is useful in fixing. The painting of the filks is done in the fame manner as the cottons, with the difference only of abler artists and more delicate pencils being employed. The weaving it into tapeftry and carpets, an art in very early practice among the Indians and Perfians, is among the most curious and elaborate efforts of Indian ingenuity, and, the filk being the finest in the world, the work would be the most vatuable of any produced by the artists of Asia. were the elegance of the defign and the juftice of the perspective at all correspondent to the fineness and beauty of the materials. The greatest part, however, of the filk produced in Bengal and other parts of India is exported raw, and in its original yellow colour. In this state many thousand bales, weighing after the rate of one hundred and fifty pounds each, are annually imported into Europe, and evince as well the immense quantities of filk-worms bred in that country

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as the unwearied industry of the natives in the cultivation of them.

Silk having been thus abundantly and immemorially made in India, and probably in still greater profusion in China, it is rather surprifing that this valuable article should, from its scarcity, be esteemed at Rome of equal value to its weight in gold, and continue fo for two hundred and fifty years, till the time of the Emperor Aurelian, who is faid to have refused his empress a suit of silk, on account of its excessive dearness. When the feat of empire was transferred to Constantinople, the Roman nobility, being nearer the region where it was fabricated, and sparing neither pains nor cost to obtain all the articles of Eastern luxury, were universally clothed in vests of silk; but their Persian neighbours and rivals, who for a time monopolized that lucrative branch of commerce, fold it in the Byzantine markets at fo exorbitant a price, as incited the Emperor Justinian to many carnest but fruitless efforts to obtain a part of that trade by other less difficult and expensive channels. While engaged in these speculations, an incident occurred which greatly facilitated his defign of wresting this monopoly

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monopoly from the hands of the Persians, and terminated in making his own capital the principal mart to Europe of that envied manufacture. Dr. Campbell having entered pretty much at large into this subject, and traced the progress of this traffic to the British isles, as the subject also descends to ages below the period of Indian Antiquities, and as I have many other interesting matters still to investigate relative to the arts and sciences of the Indians, the reader will excuse my inserting the account of that well-informed writer.

Two Persian monks, that had travelled to the Indies, went to the emperor, and told him, that they could very eafily fettle that manufacture amongst his subjects, so as that they might never be under the necessity of dealing with any strangers, much less with the Persians, for that commodity. This filk, faid they, which is fo precious here, is, in SERINDA, (the most populous and most civilized country in the Indies, where we have spent many years,) spun by certain kittle worms, which instinct they receive from nature. As for these worms, it is impossible to transport them; but their eggs may be brought thence without any difficulty, and hatched

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hatched here by giving them a certain degree of heat.

Such were the proposals made by the monks to Justinian, who readily closed with them, making them great promises, in case they were able to bring this matter to bear, which, without much difficulty, they did; for, returning to the Indies, they brought thence a considerable quantity of the eggs, nourishing the worms, when they came out, with the leaves of mulberries; and thus, according to Procopius, was the art of making silk introduced into the Greek empire.*

This transaction fell out A.D. 550, but it was a long time before it spread itself much beyond the bounds of the Greek empire; for, we find, that, A.D. 1130, Roger, King of Sicily, having conquered a part of Greece, brought over into his own country the art of managing silk-worms, which was quickly transferred thence to Calabria, and other parts of Italy, where it flourished for some ages, before it was transferred to the southern parts of France, which, the great historian

[·] Procopius de Bello Gothic. lib. iv. cap. 17.

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Mezeray tells us, happened under the reign of Francis the First, in which, however, he is deceived; for, Lewis XI. A. D. 1470, introduced it into his dominions, and sent for perfons, skilful in the art of managing silk, not only from Genoa, Venice, and Florence, but also from Greece; and, by his letters patent, dated in the year 1480, granted them considerable privileges. But the price of this commodity was still kept up at a great height.

That magnificent prince, Henry VIII. wore commonly woollen hose, unless by chance he had a pair of filk from Spain. His fon, Edward VI. had a pair of filk stockings presented him by Sir Thomas Gresham, which present of his was much taken notice of. Queen Elizabeth, in the third year of her reign, had a pair of black knit filk stockings given her by Mrs. Montague, and she never wore worsted afterwards. In the year 1600, Mr. William Lee, a native of Nottingham, invented the art of frame-work knitting, which has been fince carried, with the manufacture itself, in all its various branches, to fuch a high point

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point of excellence and national importance.*

PORCELAIN, GLASS, and COLOURED STONES.

The great number and variety of the species of argillaceous earth, which abound in this region of Asia, together with the plassic property of clay, when merely moistened with water, would naturally lead the Indians to engage in works of pottery, which afford fo excellent an opportunity of indulging a fancy peculiarly lively as theirs, in the fabrication of ornamental vales and other elegant articles adapted either to domestic use or foreign traffic. Devotion operated as powerfully towards advancing this kind of manufacture as the former; it taught them, as yet strangers to sculptured images, to mould the figures of their avatars, and all the symbols of their complicated mythology, of the purest kind of this brilliant clay; to harden them in the fire; to cover them with gold and azure, the colour of the fun and skies from which they

^{*} Campbell's edition of Harris's Voyages, vol. i. p. 506.

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emaned; and to exalt them on high in their abodes, as a kind of guardian penates, the conspicuous objects of their reverential respect.

Though their first efforts in clay and plaster must of necessity have been very rude; yet time, practice, and increasing idolatry, could not fail to improve the Indian artist in this as well as other branches of mechanics; and they would make gradual advances in it till they were able to complete those more elegant specimens of skill, in porcelain, which were fo highly valued by the old Romans; for, the vafa murrhina, though by some considered as fabricated of chrystal, and by others of agate, were, doubtless, only a finer species of Oriental porcelain. These, we are told by Pliny, were in fuch high request in the capital of the world as to be estimated, some that held three fexturies only, at feventy, and others of still larger dimensions, at three bundred, talents.*

Martial calls these vascs pocula matulosæ murrbæ, i. e. cups formed of the earth murrba with variegated spots, blue and red,

^{*} Plinii Nat. Hist. lib. xxxvii. cap. 2.

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on a white ground, which their skill in fixing colours by fire would eafily enable them to infert into the very substance of the murrhins. The murrha is faid to have been fossile production, principally found in Carmania, on the western borders of India, and in Parthia, fo that the Indians were probably potters before they quitted their first residence in Persia. At least the occupation of the potter repeatedly occurs, as the reader must have observed, in the extract from the Institutes; and there is a particular class, or cast, formed on the first division of the Indians as a nation, denominated CUMBHACARA, literally the potter.* We know, also, from the report of the Athenian ambassadors, who visited Persia before the invasion of Alexander, that υαλινα εκπωματα, or vessels made of glass or porcelain, were daily used in the luxurious court of Susa; + and, as we hear of no potteries or glass-manufactures established among the Perfians, they probably were indebted for them to their connection with India. When

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^{*} Affatic Refearches, on the Hindoo Classes, vol.v. p. 56, London, quarto edition.

[†] Aristophanes, Achain. 1, 2.

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the ancients mention glass, it is to be feared their precise meaning is not always very clearly to be ascertained; and, in this instance, the murrhins of India were most likely to have been meant by the Greek words cited above: υαλινα, however, is fometimes used to fignify chrystal, and chrystal vases were equally the production of the Indian artists with the vasa murrbina. It was in Pompey's triumph that this latter splendid species of porcelain was first exhibited at Rome, and the specimens thus displayed, probably of great magnitude, were, for their high value, afterwards dedicated to Jupiter Capitolinus. But the luxury and extravagance of the Roman nobility did not permit them to continue long without these beautiful ornaments to their tables and sideboards; however, their value decreased not in proportion as they grew more common, and they feemed still to be considered as precious at least as golden cups.

Surrentina bibis? nec murrhina picla, nec aurum Sume; dabunt calices hæc tibi vina suos.*

The murrhins refembled also Oriental porcelain in bearing hot liquors without breaking;

^{*} Martial, lib. xiii. 110.

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for, the same author, in another passage, tells us,

Si calidum potas, ardenti murrha falerno Convenit, et melior fit sapor inde mero.*

I cannot but consider the inventive nation of the Indians as the masters of the Chinese in this and many other branches of manufacture; first, because Sir William Jones, as we have feen above, confiders the latter people as emigrated Indians; and, secondly, because, in the above extracts from the Institutes, mention is expressly made not only of the potter, but of facrificial vales of flone, that is, earthy and filiceous substances formed by fusion into porcelain; and there is no authentic book of fimilar antiquity which mentions porcelain as then fabricated in China, though the Chinese have now secured to themselves, from having discovered in that more eastern region of Asia a finer earth, denominated by them KAOLIN, nearly the whole of this lucrative commerce. In fact, there is no mention of porcelain as a manufacture of China in any existing author that I recollect earlier than the

^{*} Martial, lib. xiv 113.

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ninth century, when the two Arabian travellers, whose relations Renaudot has published, visited that country, and declare as follows. Chinese have an excellent kind of earth, with which they make a ware of equal fineness with glass and equally transparent."* At this, if they were in reality Indians, there can be no wonder; but, if they were of Tartar origin, I make no doubt but that they copied, from their more ingenious neighbours, the mode of making porcelain as well as many other mechanic arts. For, notwithstanding all that M. Bailly and M. D'Ancarville have urged in their behalf, the Tartar hordes feem in every age to have been little better than brave barbarians.

The very respectable writer cited before, Father Bartolomeo, whose book, † I lament, was not published when I commenced this Dissertation, is of opinion that the ancient Indians were total strangers to the art of making glass, and that what they had of this commodity was imported into India by the Greeks

^{*} Ancient Relations, p. 21.

[†] Voyage to the East Indies, translated from the German, P. 391.

and Romans. He allows, however, the truth of Pliny's affertion, that they well knew how to make artificial stones, and were particularly celebrated for their just imitation of the BERYL.* This concession is very important; because, if they could give the colours requifite to form the imitations in question to filiceous substances or chrystal in fusion, they could not be far from the knowledge of making glass itself, though they might at the fame time import, as is affirmed by the author of the Periplus in his enumeration of the articles of traffic carried on in his time between Alexandria and India, certain species of that more curious fort of vessels of glass ware which we shall consider presently, and for which the glass-houses of Diospolis were anciently in fuch high celebrity.+ It is far more probable, however, that the first great merchants of antiquity, the Phœnicians, who monopolized in ancient periods the whole trade of India, had in those periods taught them the first rudiments of an art, universally attributed to their in-

^{*} Hist. Nat. lib. xxxviii. cap. 5.

Periplus Mar. Erythr. p. 28. 30.

vention. - that of making glass from the fine fand that covered their shore : and had also communicated to them the secret of staining it of various colours to imitate precious stones: for, that they were thoroughly acquainted with the process is incontrovertibly evident from the great column of emerald formed by Phænician artists, and which, according to Herodotus, who faw it, adorned the ancient temple of Hercules at Tyre. That column was undoubtedly fabricated of glass* stained of the colour of that gem, and by night was probably filled with lamps, as it is faid, amidst the darkness of the midnight hour, to have illuminated the whole of that august fabric. The learned author of the translation of Herodotus, a work equally valuable to the English reader for the fidelity of the text, and the various erudition difplayed in the notes, especially those of a mythological allusion, is inclined to dispute this very early knowledge of the Phænicians in the fabrication of glass; but he will candidly own that the voice of claffical antiquity is at least very loud in favour of the judgement

^{*} Herodotus, lib. ii. cip. 44.

which assigns it to them. Among those classics eminently ranks that diligent collector of their opinions, Pliny, who not only expressly affirms what has been previously mentioned, that this ancient people first made glass from the very fine fand and pebbles on their shore, thrown into accidental fusion with the ashes of burnt vegetables that lay fcattered over that shore, but, speaking of the manufactures of Sidon, intimates that they also knew the art of making specula,* glass mirrors; and, though they may not be allowed to have applied, in making them, that tin which they fo abundantly imported from Britain, yet they knew how to procure, in fome degree, a fimilar effect, by tinging the posterior furface with some opake substance, which would naturally cause images to be reflected from the fuperior.

The ancient mirrors, indeed, were not generally made of glass, but of metallic substances: from the context, however, it is most probable that specula vitrea were here intended; and the Sidonians were not the only ancient people who fabricated these glass

^{*} Plinii Nat. Hift. lib vvxvi. cap. 22.

mirrors, for they appear to have been also manufactured, at a very remote period, in the glass-houses of the great Diospolis, in Upper Egypt, in which city all the laborious operations of chemistry were carried to a high degree of perfection. In testimony of this, we have only to recur once more to those stupendous existing monuments of their skill in this respect, the mummies, some of them covered with GLASS of varied colours; on which subject, so much in point, let us again hear M. Dutens, who, on this topic at least, has certainly not advanced any thing that will not admit of strict investigation, and even of ocular proof.

"There were also in those mummies of Egypt many things besides, which fall within the verge of chemistry; such as their gilding,* which is so very fresh, as if it were but of fifty years standing; and their stained silk, still vivid in its colours, though after a series of thirty ages. In the Museum of London there is a mummy covered all over with fil-

[&]quot; The ancients also understood gilding with beaten and water gold. — Æs inaurari argento vivo legitimum erat. Plin. Hist. Nat. lib. xxxiii, cap. 3. Vitruv. lib. vii. cap. 8."

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lets of granated glass, various in colour, which shews that this people understood not only the making of glass, but could paint it to their liking. It may be remarked here, that the ornaments of glass, with which that mummy is bedecked, are tinged with the same colours, and set off in the same taste, as the dyes in which almost all other mummies are painted; so that it is probable, that this kind of ornaments, being very expensive, was referved for personages of the first rank only, whilst others, who could not afford this, contented themselves with an imitation of it in painting."*

This existing specimen of their skill is extremely curious and valuable; but, if those who have recorded the history of the progress in science of the ancient Egyptians can be depended upon, they soared to a far greater height of excellence in this branch of chemical exertion; for, they sabricated colossal statues of their gods and kings in coloured glass; and, according to Theophrastus, had erected in the temple of Jupiter Hammon an obelisk composed of sour emeralds, that is, of glass

^{*} Duten's Inquiry, &c. p. 241.

of the colour of that gem, not less than forty cubits in height, and four in breadth.*

Another colossal statue of Serapis, the Sun, nine cubits high, and consisting of one solid emerald, is mentioned by Pliny, from Apion, as in his time preserved in the labyrinth. Sesoftris is also said to have presented to the king of the Lydians a statue of Minerva, composed of one emerald, four cubits high; and tradition has immortalized the great smaragdine, or emerald, table, on which the renowned Trismegistus, having engraved the secrets of the Hermetic art, caused it to be buried with him.+

Arrian, or whoever was the author of the Periplus, acquaints us, that, in the glass-houfes of Thebais, they endeavoured to imitate the vasa murrhina of India; and that they made in abundance these false murrhins, in which they drove a considerable commerce with the Arabian and Roman merchants; but, as Pliny positively afferts that these imitative vessels were of glass, it is evident that the true

^{*} Theophrastus de Lapid. p. 394.

[†] Pliny, lib. xxxvii. sect. 19. Fabricius Bibl. Grac. lib. i. cap. 10, p. 98.

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murrhins were of a composition somewhat similar. -i. e. of a very fine species of porcelain almost as transparent as glass; but the Egyptian artists, wanting the proper materials of which the latter were made, were obliged to be content with remaining fuccessful imitators only. The Egyptians would probably have made as fine porcelain had they possessed the species of argillaceous earth necessary; but, as I have before remarked, it was principally in the more elegant kinds of highly finished ornamental glass ware that they excelled: fuch were those three cups, of very curious glass, named allassontes, sent from Egypt by the Emperor Adrian to Rome, and which, ficut palumborum colla, like the NECKS OF PIGEONS, reflected, on whatever fide they were viewed, a rich variety of colours, in the manner of the precious stone called obsidianum, supposed by some commentators to be cat's eye, and by others the opal. The Greeks, of whom the Egyptians were the masters in chemistry, soon learned of them the art of making these sictitious gems of all possible colours, the ruby, the hyacinth, the emerald, and the fapphire; for, thus Pliny, speaking of the former, observes: fit et tinctura, ex genere

genere obsidiani, ad escaria vasa; et totum rubrum vitrum, atque non translucens, PŒMATI-NON appellatum. Fit et album, et MURRHINUM, aut byacinthos sapphirosque imitatum, et omnibus aliis coloribus.*

It is time for us to return to the Indians. who are celebrated by the same writer for their skill in fabricating artificial BERYLS; that is to fay, in making coloured, but not white, glass. It is scarcely possible to conceive, after a ferious perusal of the previous extracts from Menu, but that the Indians were as ancient and as excellent chemists as the Egyptians; and, fince all the precious stones above enumerated were native to the foil of India, as shall be shewn more at large hereafter, when we come to confider the antiquity of their engraving in gems, it is equally impossible to conceive but that, as they were first known, they were earliest imitated by the more ingenious race of Indians. The Indian sciences with their books are indeed buried in fuch profound obfcurity, that here also we can alone argue upon the ground of analogy and conjecture; but the arguments for their having manu-

^{*} Plinii Nat. Hist. lib. xxxvi. cap. 26.

factured glass, in periods of great antiquity, amount to little less than certainty; for, I must repeat it, if they could make artificial BERYLS, they wanted neither means, nor genius, nor commercial incitement, to fabricate other fimilar compositions from siliceous fubstances: and, if they were so early potters, it is scarcely possible, but that they could also manufacture glass vessels, though not, perhaps, of such superior fineness as those of Sidon and Diospolis. The truth is, that, in all manufactures of pottery, owing to the intenseness of the fire made use of, fome portion of the matter is necessarily vitrified, and the glass and pottery manufacture must have gone on together from remotest antiquity.

It is very probable, also, that the Indians understood the method of working in Mosaic; for, Philostratus tells us, Apollonius saw in India a most glorious temple of the Sun, the walls of which were of red marble, resembling fire, interspersed with streaks of gold, while the floor exhibited to the view an insimite variety of pearls and precious stones, artfully disposed in a kind of chequer-work, to Vol. VII.

imitate the rays of that luminary,* and which reflected back a lustre that rivalled his genuine beams. These were probably artificial stones of the kind under discussion, and this species of Mosaic work seems to have been not uncommon in the East; for, we read in Esther of a beautiful pavement of this variegated kind in the palace of Susa, when, at the great banquet given by the Babylonian fovereign Ahasuerus, all the riches of his treasury were displayed to the view of the people. The passage impresses the mind with the most exalted idea of the magnificence in which those fovereigns lived, and is highly worthy of infertion in a work that enters fo much at large into the splendid antiquities of Afia.

And, when these days were expired, the king made a feast unto all the people, that were present in Shushan the palace, both unto great and small, seven days, in the court of the garden of the king's palace;

Where were white, green, and blue, hangings, fastened with cords of fine linen and purple to silver rings, and pillars of marble: the beds

^{*} Vita Apollonii, Iib. ii. cap. 11.

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were of gold and filver, upon a pavement of RED, and BLUE, and WHITE, and BLACK, marble.

And they gave them drink in vessels of gold, (the vessels being diverse one from another,) and royal wine in abundance, according to the state of the king.*

The Egyptians too were no strangers to this kind of elegant work in Mosaic; for, Lucan, describing the luxurious palace of Cleopatra, acquaints us,

---- totaque effusus in aula Calcabatur ONYX.

Which can scarcely have reference to any thing except the tessellated pavement, of various coloured stones, in which the onyx abounded.

On the whole, as the tribe of CUMBHACA-RA, or the potter, is enumerated among those earliest formed, and as mention is so frequently made in the Institutes of facrificial vases, there can be no doubt of very fine porcelain having been anciently made in India; and that glass, both white and coloured, could not be unknown to a race so

^{*} Esther, cap. i. v. 5, 6, 7.

far advanced in chemistry as were the ancient Indians. Indeed glass is expressly mentioned in the Amarasinha, a book composed fixty years before the Christian æra, under the Sanscreet name of Survacanda, that is, says M. Bartolomeo, "a bright transparent mass, through which the rays of the sun can penetrate."* However, they do not seem, any more than other ancient nations, to have used it for windows; for, according to this author, they employ, for that purpose, mother-of-pearl, finely wrought and polished, and which is procured in abundance at the pearl-fisheries in the neighbourhood of Cape Comorin.

SCULPTURE.

Although the early progress of the Indians in fculpture has been already considered in various parts of the preceding volumes, yet a retrospect view of what has been advanced on so curious a subject, with a few additional strictures, may not be displeasing to the reader, in this summary sketch of their arts and sci-

ences. Modelling in clay or plaster must doubtless have long preceded any efforts in this branch of science. To attempts of this humble kind, in pottery and porcelain, fucceeded colossal statues hewn from the solid rock, or cast in moulds from the various ores, as their knowledge of metallurgy increased. If a due proportion and symmetry are not always fo accurately preferved as they ought to be, an excuse for the artist readily presents itself in the very nature of the strange grotesque symbolical objects designated, exhibiting, in one complex form, various species, and often different sexes; figures with numerous heads and arms loaded with emblematical devices, (the vagaries of mythology,) the tusks of the elephant, and the horns of the ox; fometimes environed with ferpents, and at others hung round with strings of death-heads; which bid defiance to all the rules of regular science. Many of these mythological figures, however, in Elephanta, the oldest depositary of idolatrous Indian images, are by no means contemptible in point of expression; and in particular that terrific figure representing the evil principle, which diplays aloft the emblems of the

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languinary

fanguinary worship paid to it, and is engraved in the fixth volume, affords no mean specimen of the progress in design of the Indian fculptor at the early date generally affigned to that cavern-temple and its fingular decorations. Refinement in these arts. at that remote period, is necessarily out of the question; it was not elegance, but magnificence, that swayed the mind of the Inartifts. Their lofty conceptions of deity they conceived best represented by gigantic statues and massy symbols; and, by forming a mere bust of such stupendous dimensions as the principal figure there exhibits, [thirteen feet in height, the face five feet, and the breadth between the shoulders twenty feet,] the artful Brahmin completely effected the only purpose he had in view, that of over-awing the mind of the timid, ignorant, adoring, Indian.

In truth, these mythological sculptures, these emblematical representations of avatars and colossal derties, with their respective attributes and symbols, carved in the living rock, in subterraneous solitudes, the first temples, in the infancy of mankind, were in some degree necessary to sustain and keep alive

alive the ardour of the pious enthusiast. The supposed presence of the gods, in these mystical images, diffused throughout the place an unspeakable awe and an inviolable fanctity; while the choral symphonies and ever-blazing fires elevated the enraptured foul even to those stars which were the proper abode of the fidereal deities adored by them. On the other hand, the representation of dæmons on those walls, in all the horrid forms, and with all the dreadful fymbols, which fear or fancy could fuggeft, had an immediate tendency to over-awe the guilty mind, to expose the deformity of vice, and express the tortures of consequent remorfe and despair; for, in their mythological pictures, as I have elsewhere expressed myself, with the symbolic figures of the mercy and goodness of God, were constantly blended those of his justice and his wrath. As the former were sculptured with fmiling aspects, and were decorated with the enfigns of peace and protection, fo were the latter portrayed with horrible distorted vifages, and arrayed with every dreadful symbol that could alarm and terrify the beholder. These figures, converted into dæmons, under the notion of being the avenging ministers of omnipotent justice, were most to the purpose of the priest. He recited their number, he magnified their enormous power, and he awakened the agonizing terrors of his audience by impressing them with ideas of their constant and immediate interference in human affairs.

Nor to mankind, in the improved and polished state of society, have these mythological fculptures proved without important use or fublime gratification. These rude, but majestic, remains of ancient sculpture admit us to a close view of remote antiquity. The allegorical defigns which they exhibit obscurely unfold to us the history of the primitive ages; the profound arcana of their religion, the form and decoration of their temples; the dresses of the priests; and the subjects and instruments of sacrifice; they display to the eye of contemplation the first rudiments thought, the first efforts of genius. the first dawn of the sciences. On the figured walls and emboffed roofs we fee the elements embodied; the passions personified; the august school, at once, of the deepest physics and the most instructive morality! Let us once more, for a moment, descend the depths

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depths of the facred cave, to which a date much short of four thousand years can scarcely be assigned; let us penetrate its inmost recess; and again contemplate the stupendous vision.

"The principal entrance is from the north. The enormous mass of solid rock above is supported by four rows of pillars of good proportion, but of an order in architecture totally different from that of Greece and Rome. Each column stands upon a square pedestal, and is finely fluted; but, instead of being cylindrical, gradually bulges out towards the centre. The capital is also fluted, and has the appearance of a cushion pressed flat by the weight of the superincumbent mountain. Over the tops of these columns there runs a stone ridge cut out of the rock, resembling a beam, about a foot in thickness, richly adorned with carved work. Along the fides of the cavern are ranged those mighty colossal statues before-mentioned, to the number of forty or fifty, each of them twelve or fifteen feet in height; and, although they are as round and prominent as the life, yet none of them are entirely detached from the main rock. Some of these figures

figures have on their heads a kind of helmet of a pyramidal form; others wear crowns rich in devices, and splendidly decorated with jewels; while others display only large bushy ringlets of curled or flowing hair. Many of them have four hands, many have fix, and in those hands they grasp scepties and shields, the fymbols of justice and the enfigns of religion, the weapons of war and the trophies of peace. Some of them have aspects that inspire the beholder with terror, and, in the words of Linschoten, are distorted into such " horrible and fearfull formes that they make a man's hayre stand upright;" others are distinguished by a placid ferenity and benignity of countenance; and others betray evident marks of deep dejection and inward anguish. The more conspicuous figures are all gorgeously arrayed after the Indian fashion, with heavy jewels in their ears, with superb collars of precious stones, with belts sumptuously wrought, and with rich bracelets on their arms and wrifts."*

Passing by the often-described bust with three heads, and the tremendous figure of the

^{*} Indian Antiquities, vol. ii. p. 140.

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Indian Κακοδαιμών above alluded to, let us proceed in quest of farther proof of the skill in sculpture of the old Indians to the west end of this grand pagoda, where is a dark SACELLUM, twenty feet square, totally destitute of any external ornament, except the altar in the centre, and eight gigantic figures which guard the four feveral doors that lead into it. These figures are stationed one on each fide of every door, and are of the enormous height of thirteen feet and a half; they are all sculptured in high relief, and appear as if starting from the wall to which they are attached Their heads are decorated in a manner fimilar to the other statues: they have rich collars round their necks, and jewels of a vast size in their ears. Of the striking attitude of one of those statues, which remains most entire, Mr. Hunter has recorded the following particulars: that the whole weight of the figure feems to rest upon the right leg, while the knee of the left is somewhat bent, the right humerus hangs downward parallel to the body, and the fore-arm is bent in such a manner that the hand is opposite to the navel, the palm is turned upwards and fustains a GLOBE, and the fingers

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are bent backwards in a style that admirably represents, or rather makes the spectator feel, the weight of the ponderous body they support. He adds a judicious remark, that the people, whoever they are, that carved these sigures, must have made considerable progress in the art of statuary, so accurately to have observed, and so successfully to have expressed, as in many instances they have, the alteration which the form of the limbs undergoes from muscular action and external impulse, as well as the various effects of mental sensation upon the human countenance.*

I have ventured to bring these passages again before the reader's view, for the purpose not only of proving the progress made by the Indians in Sculpture at this most early period, which, as Mr. Hunter justly observes, must have been very great; but of corroborating various assertions made in the course of this Dissertation concerning their equally rapid advance in other walks of scientific attainment. Thus, for instance, the sword and the bell in the hands of the Indian Ahriman demonstrate that they were

^{*} Indian Antiquities, vol. ii. p. 259.

even then METALLURGISTS; the jewels and pearls, with which the ears, necks, arms, and ankles, of many of the figures are loaded, prove that they had already explored the fubterraneous regions for gems, and the bed of the ocean for its pearly treasures, and had accomplished the difficult process of piercing precious stones; while the ZENNAR, or facred cord of three threads, on other figures, evinces that their cotton-manufactures were already commenced. These deductions must be allowed to be just, and are very important towards determining the antiquity of the arts and sciences in India; but, at the fame time, it must be owned they carry us back very near to the period of the deluge, and consequently demonstrate, I trust, the propriety of my constantly connecting, both in the prefent work and in the History, the ante-diluvian arts and sciences, by the channel of Noah and his family, with those of the earliest post-diluvian ages. Without that hypothesis, at once fo rational and fo confonant to the Scripturehittory, which expressly mentions Tubal Cain as the first metallurgist, Cain as the first architect, Jubal as the first musician, &c. difficulties

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difficulties inexplicable would have arisen a and, by afferting the pretentions of the Indians to fuch remote antiquity, these volumes would ultimately have tended to fupport the hypothesis of the sceptic. this reason I eagerly embraced the Septuagint chronology, in the first place, because, by giving a greater age to the world, it allows a more extended period for the arts and fciences to have arrived at maturity; and, fecondly, because I am of opinion, that the arguments brought by Vossius and Jackson unanswerably prove it to be the genuine chronology of the Hebrews. On this account, fome zealous advocates for that chronology, as generally received, not fufficiently attentive to my views in doing this, have thought proper warmly to arraign that part of my book; but I had fully weighed the question, and on conviction adopted it as the system most reconcileable to reason and revelation. On this occasion, I must repeat that it is not for a few centuries more or less that we wage war with infidelity, but for the grand Christian code itself, which the enormoufly exaggerated chronologies of fceptical astronomers.

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astronomers, could they establish their vagaries, tend utterly to annihilate.

To refume the confideration of the skill of the old Indian race in statuary, a verv uncommon share of original merit (for, they certainly never condescended to be copyists) cannot be denied them. Without any claim to the merit of nice geometrical proportion or Grecian elegance, the figures of men and animals, engraved externally and internally on the pagodas of India, are by no means fo destitute of the general outlines of the science as greatly to offend the eye, however the uncouth mythology, and the joining together of heterogeneous portions of human and brutal forms, may infult the correct tafte and matured judgement of the European spectator. If in elegance they are greatly inferior to Grecian sculpture, they are at all events much superior to the mis-shapen statues of the Egyptian artists. Had not the Indian been chained down by the mythology of his country to a certain indifpensable routine, both in defign and execution, from which he dared not deviate. his progrefs towards maturity would have been more rapid; as, in Bartolomeo's judge-

ment, the modern Indians want neither talents nor taste in either of those respects. The statuary, he informs us, " must make the statues of the gods exactly in the way and manner prescribed by the priests; in order, according to their opinion, that the attributes of the deity may be properly expressed. Hence it happens that the Indian statues have from four to fix hands; three, and fometimes more, heads; and, in general, a very horrid appearance. The architect, however, has full scope for his genius, and is by no means subjected to the arbitrary prescriptions of the Brahmins. this reason the Indian architecture exhibits more taste, and is much more perfect, than their works of sculpture: but I will not deny that the statuaries also make excellent pieces when they are allowed to follow the impulse of their own genius; as is proved by the many bass-reliefs, crucifixes, madonnas, vases, and other articles of ivory, which are here and there executed by the Indian artists." P. 387.

The same apology is urged by this very sensible writer for the defects, of a similar kind, that appear in their paintings. In either

either case their genius is equally cramped, and their progress in the fine arts alike retarded.

" In regard to the painting of the Indians, the case is the same as with their fculpture. This much is certain, that no one can follow the dictates of his own genius, and paint the gods as he pleases. Every innovation of this kind is confidered as an of impiety. The Brahmin prescribes the figure and form which a statue must have: under these, and no other, it must be painted; and the least part of his care is whether these be consistent or not with the rules of art and of good taste. I have already observed, on different occasions, that the Indian mythology gives to each deity a certain furname and appellation, the object of which is to express their different qualities; and a painter, when he sketches out a god, must represent these qualities also. Thus, for example, Seeva is called the god who bears the trident; and for that reason he must be always represented with a trident in his hand. He is called, likewise, the Conqueror of Death; and, on that account, must be delineated with a number Vol. VII. D d of

of fabres, daggers, and fculls, lying around him, and with a man under his feet. He exhibits a horrid countenance; his mouth is distorted; his eyes seem to dart forth fire; and he has around his neck a cord on which a great number of fculls are strung. The case is the same with all the other deities, which must always be represented in fuch a manner as is agreeable to their character and attributes. From this it appears, that the painting of the Indians, like their sculpture, is in the closest connection with their theogony; and, as the Brahmins alone have the right of explaining it, they assume the exclusive privilege of judging in regard to works of painting and statuary. As the painters are acquainted neither with the Sanscreet language nor their mythology, it has been imposed on them as a duty to confult the Brahmins; and whoever transgresses this law is punished by expulsion from his cast. This is the true reason why painting and statuary have made so little progress in India." P. 388.

Thus, according to this author, has the despotism of superstition opposed an ever-lasting barrier to the farther progress of the noble

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noble arts of sculpture and painting in India, and prevented the free operation of talents and exertion in a nation naturally the most ingenious and lively of all the Afiatics: a nation too, it may be added, the individuals of which exhibit in their own perfons, when in the full vigour of youth and health, the most perfect models of elegance and symmetry that ever employed the chissel or animated the pencil. The reflecting mind turns with horror from a prospect so shaded with invincible barbarism; and, with increased pleasure, contemplates those distant western regions which, though less beautiful and abundant, are yet bleffed with the light of liberty, and exult in the enjoyment of a nobler theology!

Since the appearance of the third volume of this work, which contained my Differtation on the

ARCHITECTURE

of the primitive race of Indians, the ingenious Mr. Daniell has published his Designs of Indian Buildings, and, the more attentively any person considers them, the more clearly he will perceive that the Indian architecture

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is not, as has been idly argued, copied from either Egyptian or Persian models; but that it is genuine Hindoo, and, in general, the refult of their own mythological conceptions. This gentleman, who, with indefatigable zeal in fearch of the architectural antiquities of India, has ascended the fnowy precipices of the Sewalic mountains, and dared the tropical fervours that descend direct on the vast temple at Ramankoil on the most fouthern point of the Peninsula, has presented the public with a greater variety of specimens, in this line, than any preceding artist, and they will nearly all ferve as a forcible comment upon what has been previously urged, in the Disfertation before alluded to, in respect to the origin and progress of Oriental architecture; since, in these retrospective surveys, the pyramid, the cone, and the oval, perpetually recur in perfect unison with their mythological superstitions respecting the beam of the sun, the cave of Surya, or Mithra, the chaotic egg, &c. &c. There is no occasion for our retracing, in this place, ground already to amply trod over; but I cannot omit acknowledging, in this place, either my own numerous

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numerous obligations to this diffinguished artist, or expressing my sentiments how greatly Indian literature is indebted to his illustrative pencil.

In fact, the highest idea with which the most esteemed printed accounts had impressed my mind, added to the correct verbal relations of intelligent travellers, who have, within a few late years, vifited the excavated temples of India, and the pagodas that every where erect their majestic summits in the provinces subject to, or connected with, the British government, fell very far short, indeed, of what the magnificent sketches of Mr. Daniell must suggest to every man who attentively furveys and confiders them. In general, we have been accustomed to read the Mahommedan accounts of those temples, which the desolating fury of their own barbarifm has defaced in the fertile and populous districts conquered by them, and the ficred edifices of Benares, of Sumnaut, and of Seringham, excite in us the most profound astonishment. On these we gaze in the historic page with awe-struck wonder, and regard their recorded dimensions as almost incredible. It is not, however, in re-D d 3 gions

gions subjugated to the Mahommedan voke. or under the jurisdiction of any foreign power, that we ought to expect to discover the most august remains of sacred architecture in India; the yet unexplored regions of the extreme fouthern Peninfula, to which the Islamite conquerors did not penetrate, buried in immense forests or embosomed in mountains of granite, contain edifices of furprifing magnitude executed in the boldest style of Indian architecture; while many of the sculptures that cover them, from the fummit to the base, are wrought with uncommon spirit and elegance. Among animals thus sculptured, the bull, the lion, the elephant, and the Cobra ferpent, continually occur, being the principal symbols in their mythology; the three last, as objects which they are accustomed frequently to furvey, are generally well represented; but, it must be owned, the lion, being, in modern times, at least, a stranger in this region of Afia, is, in general, very inaccurately defigned. In truth, wherefoever this symbolical figure, rudely delineated as it uniformly is, occurs, we may, in general, rest alfared, from this very circumstance, that the faulpture is of high antiquity.

The pagoda of Ramisseram, before alluded to, on the island of Ramankoil dedicated to the great God Mahadeva, deferves particularly to be noticed as one of those that awe the mind by the grandeur of its elevation; and this stupendous, but secluded, temple may probably lay claim to a date in antiquity fuperior to most others in India; even the diftant date of Rama's expedition, into these regions, to recover his beloved SITA from the hundred fangs of the gigantic RAVAN, king of Cevlone. It stands close to the shore, and has felt the shock of the depredating wave, which has, for immemorial ages, been encroaching upon it. Amidst the inaccessible woods, also, that clothe the descent of the Gauts, astonishing remains of ancient buildings are to be found, confishing of very lofty columns of excellent proportion; and erections, to some of which the romantic artists of India have given the most grotesque forms imagination can conceive. Among Mr. Daniell's specimens are also immense pyramidal masses of solid stone formed like those pyramids above Giza, where the bold projecting rock has received that figure from the incessant labour of the chiffel. These, like the excavations

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that line the shore of the Nile, exhibit another striking instance of similitude in the architecture of the two nations: while the Canis Anubis and the Vara avatar, or Veeshnu with the boar's head, shew their parallel conceptions in sculptured imagery. For this astonishing display of so many of the prodigies of ancient India, accomplished at great personal risk and hazard, every lover of Indian science will feel the warmest gratitude to Mr. Daniell; accompanied with a fincere wish that the laudable example which he has fet may be followed by other professional gentlemen in India, where a vast field for exertion is still open, and the reward will, doubtless, be proportioned to the labour.

One reflection naturally and forcibly intrudes itself on the mind while considering these amazing fabrics, and that is, the impossibility of their having been erected except in those remote periods when the great Indian empire was yet unbroken by the incursion of foreigners; when one supreme sovereign MA-HA-RAJAH swayed the righteous sceptre of this happy country, by noble rewards encouraged genius, patronized the rising arts, and, with a powerful hand, protected the

efforts of the persevering architect. At the period of Alexander's invalion we have feen that the Indians were no longer firmly united under one puissant sovereign, no longer fought under one victorious banner: the divisions among the rajahs had long commenced, and their contempt, or, at least, neglect, of the supreme head of their order. had encouraged the warlike barbarians, of every neighbouring country, to pour their armies into that debilitated country and among that divided people. To suppose undertakings, thus vast in design and arduous of execution. could possibly be finished, or even projected, amidst the turbulence and distraction of war. would argue abfurdity in the extreme. They are consequently to be contemplated as equally august and decisive monuments of the grandeur of the ancient Indian empire when flourishing, under its native dynasties of princes, in meridian splendour.

ENGRAVING ON GEMS AND SEALS.

We are now, in the last place, to enter upon a subject equally curious and abstruce; an art, the high antiquity of which, at least

least in India, has been very much disputed, though no fact can be more clearly aftertained than its having early flourished in that region of Asia. Under a former head we have feen how early the Indians had attained the arts of defign, sculpture, and metallurgy; in what remote periods they carved on wood and stone the images and avatars of the gods, and the animals, and objects deemed facred by them, the goofe of Brahma, the bull of Seeva, the garuri, or eagle, of Veeshnu, the elephant-head of Ganesa, the serpent, the lotos, and other symbols with which all the caverns abound. We have heard Mr. Halhed's judgement "with respect to the ancient coins of Nepaul and Cashmere, and the feals of Bootan and Thibet,"* impressed or engraved with the oldest Sanscreet characters and mythology. the Institutes also, regulating our decision by the ascertained "age of that book, we have feen how very early they had learned the difficult process of enchasing in gold, and of piercing fine gems, diamonds, and rubies;"+ but we perhaps have not taken

^{*} See page 583 preceding.

† See page 685 preceding.

fufficient notice of the Sanscreet alphabetical writing conspicuously cut in the Elephanta cavern, and on the breast of the principal figure in the grand triple bust; for that is, in fact, engraving, and exhibits, at once, a surprising proof of the antiquity of the art and of the alphabet.

The hieroglyphics, engraved on the granite of Egypt, are the only ancient specimens of this art that can at all vie in antiquity with those of India; at that period, to have possessed instruments proper to cut them on that granite fo deeply and durably, argues, in the Egyptians, no small advance in chemical science; and, in truth, as few of the inferior classes of precious stones are of a much harder substance than Egyptian granite, their being able to operate upon it may well be deemed to imply fuch an acquaintance with the use of those important machines in this science, the wheel and the drill, as would enable them to engrave on the more valuable gems. There is no occasion, however, on this subject, to have recourse to conjecture; the evidence of Scripture, in favour of Egyptian genius, is clear and express; for Pharoah, in exalting Joseph to the elevated rank which

which he enjoyed in his court, is faid to have given him his ring or fignet,* which necessarily implies an engraving. This event took place in the 18th century before Christ, and, much about the same period, Judah is said to have given his fignet and his ring in pledge to Tamar. Afterwards we find the Jewish artists engraving, on the substance of the hardest and most valuable stones, the names and symbols of the twelve tribes of Israel, intended to adorn the ephod and breast-plate of the Jewish high-priest; the assortion of those stones was equally superb and beautiful, for Moses is thus commanded.

And thou shalt set it in settings of stones, even four rows of stones: the sirst row shall be a sardius, a topaz, and a carbuncle; this shall be the first row.

And the second row shall be an emerald, a sapphire, and a diamond.

And the third row, a ligure, an agate, and an amethyst.

And the fourth row, a beryl, and an onyx, and a jasper: they shall be set in gold in their enclosings.

^{*} Genesis, xli. 42. d Genesis, xxxviii. 18.

¹ Exodue, xxviii. 17, 18, 19, 20.

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But, what is more important to our purpose, Moses is also commanded to take two onyx-stones; and GRAVE ON THEM THE NAMES of the children of Israel:

Six of their names on one stone, and the other six names of the rest on the other stone, according to their birth.

With the WORK OF AN ENGRAVER IN STONE, LIKE THE ENGRAVINGS OF A SIGNET, shalt thou engrave the two stones with the names of the children of Israel: thou shalt make them to be set in ouches of gold.*

Thus much was proper to be faid in justice to the claims of Egypt to very high and ancient proficiency in the lapidary's and engraver's art; but the claims of India ascend far higher; and the learned naturalist, Mr. Raspe, has laboured with very great success to establish them. He has very judiciously observed that India, besides the ingenuity and mechanic turn of her sons, has natural claims to the invention of this art which Egypt never possessed. By natural claims, he means to say, that Nature has abundantly done that for India which she never did for Egypt; and,

Exodus, xxviii. 9, 10, 11.

from times immemorial, has produced from the inexhausted mines of her peninsula and islands, her quarries, and rivers, all the very best forts of precious, fine, and hard, stones which lapidaries and engravers work upon; together with every substance and material which sharpen their tools and conquer their otherwise invincible hardness; - the real Oriental diamond, at once the object and tool of the lapidary and engraver, the rubysapphire, emerald, topaz, chrysolite, the sardonyx, chalcedon, onyx, cornelian, jasper, as also a particular fort of diamond-spar which cuts diamonds incomparably better than the best emery."* Egypt, he adds, had only jaspers, porphyries, and some other hard filiceous stones, of its own production; its famous emerald mines, in the Thebaic desert. are either lost or exhausted; or, according to his own and Mr. Dutens' opinion, never produced the real emerald; and he affirms they never had the real diamond, nor even the diamond-spar, without which the engraver could not operate.

Raspe's Introduction to Tassie's engraved Gems, vol. i. p. 14.

This flatement, from fo high an authority as Mr. Raspe, is very forcible, and I think the arguments used are decisive, especially when the specimens of ancient Indian engraving on gems, which are exhibited in Mr. Taffie's valuable collection, are at the same time attentively confidered. The first of these is a beautiful EMERALD belonging to Mr. Wilkins, and bearing the Indian sing, or lion, with a Sanscreet inscription which marks it for an antique, though it is impossible to say of what date. He speaks of the style of the engraving as bold and impressive, and equal to the best works of the old Egyptian school. The second is of LAPIS LAZULI, in the possession of Mr. Townley, representing a man and woman fitting on a kind of throne, and habited in the manner and style of the ancient bas-reliefs difcovered at Salsette and Elephanta. is on sulphur; and a fourth of ORIENTAL GARNET exhibiting figures dreffed nearly fimilar. He has also published some zodiac figures of prefumed Indian fabrication; but they are very doubtful.

Mr. Guise, late surgeon of the hospital at Surat, has also, with indefatigable zeal, collected, and recently imported into his native country,

country, some very curious specimens of engraved feals and rings, undoubtedly Hindoo from the symbols and characters which they exhibit. One of them, the lion, or sing, on a cornelian, rudely enough defigned, but deeply cut in the stone, with a lotos rising from his back; another, on lapis lazuli, of a peacock, with its tail expanded, the mythologic bird on which Carticeya rides, the Indian Mars, who leads along the radiant host of heaven, designated by its spangled plumage; and feveral like those of Mr. Townlev, habited and throned after the manner of the Elephanta figures, are deserving of very minute attention from the antiquary. They were dug out of the earth in the neighbourhood of Surat, and, doubtless, many more that earth conceals, which time and future research, similar to the laudable and zealous inquiry of Mr. Guise, will not fail to recover from its obscuring bosom.

M. Bartolomeo also entirely agrees with the above accounts of the skill of the old Indians in engraving seals and rings, and mentions two or three very valuable specimens which he had seen in India.

The Indians," he observes, " are accustomed to examine the water of diamonds always at night by the light of a lamp. In Europe, diamonds are separated by sawing them; but the Indians split them, or cut. them down to the proper fize, - a labour in which they are much more expert than the Europeans. Some years ago, the Great Wogul had a diamond which weighed 2701 carats. It was valued at two millions five hundred thousand rix-dollars. This diamond, therefore, exceeds in value any hitherto known: for the large diamond of the grand duke of Tuscany weighs only 130, the Sanci 106, and the famous Pitt diamond 136 carats three grains.

"The artists of Ceylon prepare rings and heads for canes, which contain a complete affortment of all the precious stones found in that island. These assemblages are called Jargons de Ceilan, and are so named because they consist of a collection of gems which reslect various colours, such as the red ruby, the skyblue sapphire, the golden yellow topaz, called by the ancients chrysolite, the green emerald, which I found myself in Ceylon, though some affert that it is not a production of that Vol. VII. D d* island:

island;* also the amethyst, beryl, opal, and garnet. All these stones may be procured at Colombo in the island of Ceylon, at Cochin and Calicut in Malabar, and at Madras on the coast of Coromandel.

"The Oriental diamonds are octagonal and sharp-pointed. This form, their colour, water, and lustre, with the liveliness of their irradiation, are the essential characteristics by which they may be distinguished from the Brasilian diamonds. The different kinds of agates, cornelians, chalcedonies, swallowstones, opals, onyxes, and cats eyes, which, according to the system of Wallerius, belong to the silex genus, are not much esteemed on the coast of Malabar, though some of them are brought thither from Arabia, Persia, and the northern part of India.

"On a feal ring of the king of Travancor, which confifts of a very hard and va-

e "Dutens, in his book Des Pierres précieuses et des Pierres sines, p. 38, says, speaking of the emerald, that it is exclusively found in America, near Manta, in Peru, or the valley of Tunka, in the mountains of New Granada and Popayan, and was not known to the ancients. The author of this voyage afferts, that he found emeralds in Ceylon, and I myself have obtained some of them from that island." — FORSTER.

luable stone, the following words are inscribed: Shri Padmanabhen. This is one of the facred names given to Veelbnu, and contains an allusion to the birth of that deity. Shri fignifies facred, Padma denotes the nymbhaa, and Nabhen one who fits in the interior part of this flower. The reader will recollect, from what has been before faid. that the nymphaa is a symbol of water, and of every thing created from it. The above words ferve as a convincing proof that the Indians are certainly acquainted with the art of cutting upon stone. A like ring was in the possession of the king of Ceylon, Vimala Dherma Survada, who embraced the Christian religion, and at baptism got the name of Don John of Austria. On this ring the god Budba was represented under the human form." P. 392 to 395.

The Ayeen Akbery has a chapter on the Indian mode of fetting in gold the infinite variety of precious stones with which their country abounds, and on their curious gold filigree work, in which they are there said to be "exquisite artists;" as well as to charge

^{*} Ayeen Akbery, vol. iii. p. 264.

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branch of the profession. In the preceding Dissertation, (at page 551 of this volume,) the reader will find a confiderable extract from that chapter; and Mr. Bartolemeo, in this instance, as well as the former, bears decisive testimony to their scientistic skill. Indeed, when it is considered that, in India, the son never deviates from the occupation which his father pursued, through a long succession of generations, there is no wonder that the inhabitants should carry the mechanical arts to the utmost degree of attainable perfection, by a race equally ignorant and disdainful of European attainments.

To conclude; in whatever light we contemplate this wonderful people, whether as artists and mechanics, or as scholars and philosophers, we are lost in mingled admiration and astonishment; and, while we lament many of their local prejudices and blind superstitions, we cannot avoid feeling a just indignation against those successive oppressors that, in every age, have devastated their beautiful country, and finally subverted their ancient and happy government.

A

DISSERTATION

ON THE

ANCIENT GOVERNMENT,

AND

JURISPRUDENCE

0 F

INDIA.

Voi VII. E e

DISSERTATION, &c.

CHAPTER I.

Ancient classical Writers very defective in Information, respecting the INTERNAL POLICY of the Indians .- Accounted for in the Reluctance of the Indians to admit Visits from Foreigners, and in the Injunction of Menu to themselves not to pass the Attock. - Their Relations, bowever, not wholly to be rejected. — The Government MONARCHICAL, but not despotic, and founded on the Principles of the PATRIARCHAL. - The unlimited Power of the Brahmins, immediately derived from a divine Source, in the Control of the regal Authority, and in the arbitrary Interpretation of the Laws, rendered it a Kind of THEOCRACY. - Hereditary Counsellors of the Crown, in Peace and War; all the E e 2

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the bigber Functions of effective Government, though nominally and by Law intrusted to the Khettri, or Rajah, Tribe, ultimately depended on themselves. — Wisdom of the original Division of the Hindoos into four Casts. — Their Duties, Rights, and Immunities, respectively considered. — The Police 'established throughout the Indian Empire extremely vigilant and rigid. — The Duties of its Officers. — That 'Police Sanctioned by a Code which held out Rewards as stattering as the Punishments it denounced were terrible and sanguinary.

N the subject of the original form of government established in India, little solid information can be expected from the classic page of antiquity, because a perfect knowledge of the mode in which the government of a country is conducted necessarily implies an intimate acquaintance with its history. But, concerning that history, through the whole volume of antiquity, there are scattered only the faintest glimmerings of intelligence; and this universal and continued ignorance of the ancients, in regard to the domestic history of India, is easily to be accounted for

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in the peculiar manners of this secluded people, who seem neither to have been anxious to visit other nations nor to receive visits from them.

In truth, forbidden, under the severest penalties the legislature could inflict, to wander beyond the limits of the country which gave him birth; attached to that country as well by its fertility and beauty as by the necessity which there existed of his daily performing a multitude of facred rites and ceremonious ablutions prescribed by his religion, and possibly ordained for that very purpose by the wife policy of Menu; fixed by the decree of the same legislator to a rank and class among his fellow-creatures, from which those immutable decrees allowed no possible deviation; the ancient Indian could possess little curiosity to be gratified in regard to foreign kingdoms, of whose existence, indeed, in any extent or number, his fecluded fituation would naturally render him in a great degree ignorant. He professed also a religion so directly opposite, in its leading principles, to those of that furious Mahommedan superstition which afterwards deluged with blood his unhappy country, that it neither fought nor admitted of E e 3 profeiytes:

profelytes; and, while he conscientiously obeyed the mandates of a system of jurisprudence, which prohibited any immediate intercourse with the individuals of all the various tribes, except his own, that inhabited his native region, he could not fail of scrupulously abstaining from the desilement inevitably confequent on an intercourse, still more strictly interdicted, with foreigners. The Attock, the most western river of the Panjab, the very name of which implies forbidden, was appointed by Menu to be the eternal barrier between them and alien nations, and to pass it was to incur at once the chastisement of man and the curse of God.

On the other hand, deterred by their natural reluctance to admit strangers within their cities, sew travellers in ancient times penetrated far into India, and sewer still into the mystic theology and abstruse lore of the Brahmins. The visits to that country of Zaratusht and Pythagoras, for the noble purpose of investigating the principles of their philosophy, are among the sew recorded in history. In respect to their commerce with the Egyptians and Arabians, that branch of it was carried on principally along the coasts of

the Peninsula; and Lahore and Cabul seem to have been the utmost limits of the migration of those merchants of Upper India, who traded to Persia and Tartary. Hence it arose that such astonishing sables were circulated in the ancient world concerning this little explored country, where every thing vast and prodigious was supposed to generate and abound; of all which, the credulous Pliny has been the diligent collector and the too faithful narrator.

The Indian fovereigns also, contemplated as they were by their subjects, as the vicegerents of God on earth, with a reverential awe little fhort of idolatry, possessing treasures beyond calculation, and power without limit, in their hereditary domain, felt no sting of avarice, no ardour of ambition, to goad them to the conquest of furrounding nations whom they confidered as Mileeches, infidels, outcasts of God, and occupying a station in the scale of humanity far inferior to themselves and the favoured tribe of the great Brahma. Over fuch vassals, they would have thought it inglorious to have reigned; happy would it have been for the Hindoos, in after-ages, had the Persian and Tartar sovereigns, their neigh-

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bours on the west and north, been of the same opinion with themselves!

Not absolutely relying on what classical writers have written concerning India, yet, in the course of our retrospect, not wholly regardless of their exaggerated narrations, let us consult the more accurate accounts which British diligence and zeal, in India, have recently procured for us of that country in its earliest periods, either from books or living authorities of the highest rank; let us inquire what actually was that government so celebrated for its wisdom and equity, and in what manner it was conducted to render it at once so lasting and so respectable.

It certainly was, in the strictest sense, monarchical, but with very just and severe checks to guard against the possible abuse of the powers intrusted to the ruling sovereign. The Indian monarchy, as originally established, at the same time exhibits to us in a more marked manner than most other countries of Asia glaring vestiges of the original patriarchal mode of government, sounded on the model of the paternal, in which the chief of each samily exercised the sovereign jurisdiction over the individuals of it, even to the instiction

of death, when merited; continuing to flourish unviolated for a long succession of ages. With the regal, in him were combined the sacerdotal dignity, and a kind of prophetic fanctity of character, supposed to have defcended to him from that venerable personage who was the grand fountain of all postdiluvian honours; the KING, PRIEST, and PROPHET, of the regenerated world! A band of holy Brahmins, who, like the Magi of Perfia, were the hereditary counsellors of the Indian crown, constantly attended in the palace, and around the facred person of the prince, to give him their advice in the most important concerns of his empire, to inculcate upon him the duty of a just and wife fovereign, at flated periods to chaunt the folemn hymns of devotion, to affift at the frequently returning rites of facrifice, and explain the omens of the blazing altar.

Though the functions of government, by the laws of Menu, devolved on the Khettri or Rajah tribe; yet it is certain, that, in every age of the Indian empire, aspiring Brahmins have usurped and swayed the imperial sceptre. A whole nation of Brahmins was found by Alexander in the western districts of India, on whom,

whom, for their obstinate opposition, that conqueror exercised the greatest severity, and even crucified their king. But, in fact, there was little necessity for the Brahmin to graso at empire: he ruled both the empire and the monarch: he was greater out of the purple than in it. Without the immediate fanction of that tribe, in no event of national confequence did the fovereign dare to embark, either in the feafon of profound peace, or amidst the turbulence of the embattled field. He was invested with equal power in the palace and in the camp. He elevated alternately the olive of peace, or wielded the thunderbolt of war. Strabo politively afferts,* and his affertion is confirmed by the refults of modern inquiry, that the code of Brahmin law was not originally committed to writing; in fact, the very name of that code, which is MENUMSRITI, or institutes remembered from Menu, proves this representation to be just. Till the age of Vyasa they were deposited folely in the memory of the Brahmins; and to them the prince applied in all matters of difficulty. On occasions of extreme natio-

^{*} Strabonis Geograph. p. 716.

nal urgency he vifited them in the dead of the night, and their answers were given in all that gloomy pomp and profound folemnity attendant on the midnight hour. By an overstrained conception of the high fanctity of the prieftly character, artfully encouraged for political purposes by the priest himself, and certainly not justified by any precept given by Noah to his posterity, the Brahmin stood in the place of the Deity to the infatuated fons of Indian superstition; the will of heaven was thought to be uttered from his lips, and his decision was reverenced as the irrevocable fiat of deftiny. Thus, boafting the positive interpolition of the Deity in the fabrication of its fingular institutions, guarded from infraction by the terror of exciting the divine wrath, and directed principally by the facred tribe, the Indian government as originally formed may be juttly confidered in the light of a THEOCRACY; a theocracy the more terrible, because the name of God, by this perwerfion, was made use of to fanction and support the most dreadful species of despotism; a despotism, which, not content with fubjugating the body, tyrannized over the proflute faculties of the collaved mind.

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We are informed by Strabo, that the great body of the Indian nation was divided into seven distinct classes, but we know, from more authentic fources, that this division was only four-fold, that is to fay, into the classes facerdotal and regal; the tribe agricultural and mercantile; and that of artificers, mechanics, and servants. These, however, are again subdivided into an infinite variety of inferior casts, and in these, by the arbitrary mandate of their great legislator, they are bound to remain without hope of removal or possibility of exaltation. The apparent impolicy of this division has been often descanted upon, and justly anathematized as a barbarous attempt to chain down the powers of the human foul, to check the ardour of emulation, and damp the fire of genius. On that ground, it certainly deferves the feverest reprobation; yet, by this arrangement, it should be remembered, the happiness and security of a vast empire was preserved inviolate during a long series of ages under their early fovereigns; by curbing the fiery spirits of ambitious individuals, intestine feuds were in a great measure prevented, the wants of an immense population were amply provided for by the industry of the labouring classes. classes, and the several branches of trade and manufacture were carried to the utmost degree of attainable perfection. Though the stern serocity of Mahommedan despotism hath insulted their religion and overturned their government, yet they have not been able to rend from them the superior palm of excellence to which the curious productions of the Indian loom are so highly entitled; and the exquisite work in gold and jewellery, that passes through the pliant singers of the Indian artist, remains still unrivalled in any commercial region of the earth.

The wide diffusion of the Sanscreet sciences, language, and mythology, over the whole eastern quarter of Asia, appears fully to justify the Brahmin affertions that the empire, in very remote periods, extended from the mouth of the Indus, west, to the Sea of China, east; and from the Thibetian mountains, north, to Cape Comorin in the south. These are the vast lines of demarcation which Sir William Jones, from the Brahmin records, sometimes assigns to the ancient empire of India; and, if Mr. Halhed's affertion be correct, "that he found the Sanscreet characters, and emblems allusive to the Sanscreet mythology, so universally

fally engraved on the coins of Assam, Nepaul, and Cashmere, as well as on those of Bootan and Thibet,"* their claims to that wide domain seem to be indubitably established; and it should not be forgotten that the very same books record the migration, near four thousand years ago, of the heretic Chinese from the bosom of the mother-country, towards the regions lying nearer the rising sun.

This mighty'empire was governed, according to their own annals, by one supreme monarch, the Maha Rajah, or Great Rajah, to whose sovereign control through its whole extent a numerous class of subordinate rajahs was obedient, and wisely to govern such an immense territory, it will readily be granted, required the full exertion of all the sacerdotal, regal, and prophetic functions with which this superstitious people have invested their first venerated sovereigns, after the flood of Satyaurata Menu. These princes, therefore, formed a chain of sendatories, governing vast kingdoms, governed, in their respective districts, by the same laws that bound the sovereign,

^{*} Halhed's Preface to his Bengal Grammar, p 3.

⁴ Sir Wm Jones's Effey on the Chinese Nation.

and equally restrained by the presence and power of the Brahmins from abusing the office of chief magistrate delegated to them by the supreme Brahma and the sacred tribe, who, in the order of creation, sprang from his head, like Minerva from the head of Jove.

Nothing could have prevented the ancient Indian kings, exalted and revered as they were by their fubjects, from becoming despotic tyrants, but this falutary restraint upon their power, added to the powerful ARISTOCRACY which the inferior, but valiant, nobility of their own tribe composed. The Brahmin might be faithless to the trust reposed in him by his god; but the inferior rajah disdained illegal and dishonourable submission: he well knew, and, at the hazard of being and fortune, would affert, the rights of his cast. The truth is, that, whatever arguments may be urged against an overgrown aristocracy in a highly monarchical government, they constitute still the great barrier against the exorbitant power and usurpation of the crown itself. Were the natural jealousy, the contanguinity, the combined influence of a high-minded nobility, in a government, destroyed; the liberty, or rather the remains of liberty, in that state, would

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would be quickly annihilated, and completedefpotism establish itself upon its ruins.

By his high office, the Marajah had the fole power of directing the national vengeance against the common foe, and of summoning all the inferior rajahs to the field, at the head of the quota of troops which every feparate province was compelled, by stipulation, to furnish. The imperial army of India, therefore, when affembled together, must have consisted of an immense body of horse, foot, and elephants; and we ought not to confider as fo highly exaggerated, the account given in classical writers, that Sandrocottus, or, in Sanfcreet, Chandragupta, who had usurped the throne of the ancient Marajahs on the Ganges, had raifed an army, to oppose the Greeks in that quarter, of 600,000 men. This number is in perfect unison with the immense extent, power, and population, of India, at that period, and greater armies have been fince brought into the field of Indian war. Strabo. indeed, from Megasthenes, informs that, in his time, the great Indian empire confifted of one hundred and eighteen nations,

^{*} Strahonis Geograph. p. 719.

each of which was governed by its own peculiar prince: a descendant of Porus afterwards wrote to Cæfar, then at Antioch, foliciting alliance, and boasting, that he, that time, reigned over 600 tributary princes. but most of these could only have been governors of cities, or chiefs of small cantons, dependent on his power. The regal honours in their families, as in the chiefs, were hereditary; they had the power of life and death, but were compelled, by tremendous obligations and the forfeiture of cast, to regulate their decifions by the grand legislative code of Menu. An affembly of the Brahmins, fitting in judgement on a vicious or tyrannical king, may condemn him to death, and the fentence is recorded to have been executed: but no crime affects the life of the Brahmin, he may fuffer temporary degradation from his cast, but his blood must never stream on the sword of justice; he is a portion of the deity, he is inviolable, he is invulnerable, he is immortal!

So profound, so inextinguishable, was the respect, with the dawn of life, inculcated, and, through every period of it, paid, both by prince and subject, to that code; so perfectly did every member of the four classes know Vol. VII.

and, from dread of the horrible punishment denounced against the breach or omission of them, perform the duties incumbent on his peculiar station; that, while piety and fortitude reigned at the helm, while the Maha Raiah himself continued faithful to the awful trust reposed in him, while the Brahmins remained vigilant and uncorrupted, the utmost tranquillity could not fail of pervading every quarter of the empire. Strabo, with his usual correctness, informs us, that the Indian sovereigns were obliged to shew themselves publicly to the people once a day, to hear petitions, to redrefs grievances, to determine differences arifing among their subjects; nor could they rife from the tribunal till all were heard, and every claim adjusted: the descendants of Timur religiously adhered to this Indian rule. In all negotiations, the public faith when once plighted in any treaty was inviolably pre-The figure of an anchor, the facred fymbol of truth and stability, was engraved upon the grand imperial fignet, used upon those folemn occasions.*

While the main fpring of this vast political machine performed its functions with un-

^{*} Philostratus, lib. iii. cap. 11.

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deviating regularity, all the inferior movements were in perfect unison with it; but, when the repeated invasion of Tartar and Persian warriors had at length shaken to its centre their ancient throne, and weakened their enormous power, a general relaxation, both in discipline and morals, took place in all the subordinate branches of the monarchy. The inferior rajahs renounced their accustomed obedience to their chief; and, aspiring to independence, in their respective districts, forgot equally the laws of Menu, and reverence for the Brahmin who ought to have enforced it; and the wellpoised empire of Hindostan tottered to its foundations. Internal divisions added to the convulsion of the empire from foreign assaults, and the hostile raighs endeavoured in the field, to which they had been trained, to wrest from each other the provinces which their treachery had usurped.

The Indian nation feem to have continued in that happy and envied state, before defcribed, from the foundation of their empire, under Rama, till within about 700 years of the Christian æra, when the first Tartar and Persian invasions commenced, and were at first

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first vigorously resisted; but India and the uncounted treasures of its peaceable monarchs, accumulated during a feries of centuries, afforded too strong a temptation to those valiant marauders to be relinquished after only one or two repulses; the attack was therefore renewed by both with numbers vaftly increased and with tenfold vigour, and the Maha Rajah, if not wholly conquered, was subjected at least to tributary dependence: thus they continued to the time of Alexander's invation. great bond of union, by which fo vast an empire had been holden together, was already broken; and, both in its eastern and western quarters, the inferior rajahs had usurped authority and privileges unknown to the principles and original constitution of the monarchy. The fituation of things. however, at the period of the Greek irruption, fully verifies the preceding reprefentation both of the affairs of India and the characters and pretentions of the ra-It demonstrates that the great feudatory princes of India, though they retained their martial spirit and their usurped dominions, no longer obeyed the fummons of the

the Marajah as their supreme chiestain to the embattled field: no longer elevated those united banners against the foreign invaders of their country, which, in ancient periods, formed around his throne an impregnable bulwark. Their conduct to their chief was perfidious; and, that they no longer cherished that harmony, even among one another, which might render them formidable to the common foe, is evident from the motives which Strabo assigns for the junction of Taxiles, whose dominions spread for a great extent along both the shores of the Indus, with Alexander. The reason alleged for the ready affistance which he afforded Hæphestion, in preparing the bridge of boats on which he passed that river, was the rooted enmity he bore to Porus, his rival, whose dominions lay on the east of the Hydaspes, and the noblest species of glory which that conqueror obtained in India was his uniting of those rival chiefs in bonds of lasting friendship.

Of the nations at that period inhabiting the western region of India, and of the rajahs that governed them, we have just ground to entertain the most elevated and honourable

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notions,

notions, fince they fought with the most undaunted firmness against the veteran troops of Alexander, - against troops that were the flower of the armies of Greece, conversant, from long and fevere experience, in all the various movements and all the intricate business of war, as well as furnished with every dreadful and effective engine for carrying it on with vigour and fuccess. Yet, neither the terror of the new arms which affailed them, nor the intrepidity of a new enemy whom they opposed, could damp the ardour of their fortitude. In the defperate fiege, the novel and terrific appearance of the immense battering machines prevented not the invested garrison from making the most spirited efforts against their invaders; and it was with hardly any remains of life that the adventurous invader himself was borne on his shield from a principal city of the Oxydracæ, whose name, by concealing it, it would feem as if they were afraid of immortalizing. Every new river which he croffed, every new province which he attempted to fubjugate, his hardy Indian adversaries still disputed, with a fortitude that shrunk from no danger, with an ardour which no fatigue could

could abate, and with a perseverance that must have been crowned with success against an enemy not deemed invincible. Again and again driven from the field, they still continued to rally their dispersed forces; and, although the Oxydracæ were defeated at Sangala, they renewed the engagement near the shore of the Indus. It may be urged that the veracity of the Greek historians stands upon a fuspicious foundation, and that they who could degrade themselves so far as to compliment Alexander with the honours of divinity would not scruple at a falsehood to enhance his cclebrity; but would naturally be led to magnify his enemies, with intent to increase the glory which victory, under fuch circumstances, must infallibly bring along with it. The Khettri, or wartribes of India, however, have not less in modern than in ancient periods indubitably established their right to the distinguished character of heroic fortitude The Mahrattas. one of those tribes in particular, may contest the palm of undaunted valour with the finest and best disciplined troops of Asia, and bid fair, at some future auspicious period, effectually to liberate their country from the F f 4 galling

galling yoke of their Mahommedan ty-

Having taken the above general furvey of the duties and functions affigned to the first and second classes of the Hindoos, it would be unpardonable to omit mentioning the guardian, the paternal, attention extended by the ancient legislature of India to the two inferior casts; who, while they contributed fo materially by their industrious exertions as merchants, husbandmen, mechanics, and in the still humbler servile capacity, to the support, the comfort, and even the luxury, of the superior orders, had a right to expect, and fully enjoyed, the protection and fostering care of the government under which they toiled. It must here be noticed, that the fovereign of India has been immemorially confidered as the fole proprietor of the foil; * and, under ancient grants from the crown, the great Zemindars hold their lands on the easy terms of paying a fixth part of the annual produce to that fovereign for his support and the subfishence of the national armies. Ancient writers fay, that a fourth was

^{*} In the code of Hindoo laws, the king is declared "lord-paramount of the foil," p. 194. Calcutta, quarto edit.

the fum stipulated between the sovereign and the renter of the land: but I have elsewhere produced a passage to prove that it was only a fixth, which is a still more lenient deduction from his profits. It might be called a perpetual lease; for, the punctual payment of that fixth ever fecured the possession of the farm to the family who rented it; and, in the ancient æras of the empire, it descended from father to fon in the third cast by a kind of hereditary right. To fo important a member of the community as the cultivator of the ground, in a country where the inhabitants subsist principally on vegetable productions, it was but confistent with the highest policy to render his fituation comfortable and his property inviolably secure from invasion. This is done in a most ample manner, by a feries of wife and humane laws, in the chapter of the code that concerns the third class; and which we shall presently more particularly notice. By those laws, he was for ever exempt from all the burden of public fervice military and civil; he faw, but felt not, the tempest of battle which raged around him; hostile squadrons in the ardour of pursuit and victory respected the property

property and the person of the husbandman. In the ancient periods of the empire, Strabo tells us, it often occurred, that, while in one field the flames of war spread havoc and destruction, in that adjoining, the unmolested husbandman was beheld in security tilling the ground, and providing by his industry against its disastrous ravages.* There was, indeed, one apparent burden under which the husbandman laboured; but his devotion to the religion of his fathers forbade him to esteem it as such. The king had his fixth by law allotted to him; but all, if he were disposed to take it, was the Brahmin's. Among the fruits and grain of the earth he felected the choicest for his own use and the service of the temple. It was a facred claim beyond the arbitration of man; and the infatuated devotee, instead of withholding the boon demanded, however great, exulted to be thought worthy of the partial favour of heaven in accepting it.

The merchant was equally protected in his property with the husbandman; a moderate tribute paid the government, for li-

^{*} Etrabonis Geograph, p. 704.

berty to exercise his employ, secured him that protection. The artifan, the labourer, upon the same terms, shared similar advantages. Every name was enrolled according to his cast, his occupation, and his rank in that cast. A most rigid and vigilant police pervaded equally the city and the country. Innumerable officers were appointed in every district of the empire to collect those tributes, to inspect the slate of the public roads, and those objects of high importance in a country occasionally subject to droughts from defective inundations, the tanks, or refervoirs: to mark out anew the boundaries of lands desolated by the ravages of the more violent and destructive ones; to superintend the public inns, or choultries, destined by this hospitable nation for the accommodation of pilgrims and strangers; to preserve, free from annoyance or obstruction, the passages through forests and over the great rivers in a country where a vast internal commerce vigorously flourished; and, finally, to transmit to the fountain of government constant and faithful reports of whatever fell beneath their jurisdiction, in which the least fraud or prevarication was punished with death. legislative

legislative code fanctioned and fortified the vigour of the police with all its authority, minutely pointing out to every class its peculiar duties, and alternately uttering, as the party seemed most likely to be affected by it, the soothing language of reward or the menaces of vengeance.

Thus the merchant is animated to liberality in dealing by the noblest precepts and incentives: the mechanic is deterred from injustice - the false weight and the deceitful balance - by the most dreadful denunciations of the vengeance of heaven against extortion: while the menial fervant and labouring cooley are comforted with the cheering hopes that diligence in their respective stations will procure them favour in the fight of the all-feeing Brahma, and that their abject fituation in this transitory world is only meant to prove their virtue and integrity amid the pressure of reproach and poverty. In truth, the situation of all the inferior classes is attempted to be made easy to them by perpetually impressing the maxim that they are only doing penance in those humble stations for crimes committed in a former state of being; and, though the limits affigned their fphere sphere of action in this stage of existence are irrevocably fixed, yet the path is open for persevering virtue and piety to gain the summit of persection in another stage of it,—even to be born again in the losty Brahmin cast and rule the race of monarchs, at whose nod they now tremble. The tribe of Chandalah, or the outcast tribe, awakens horrible ideas in the human mind; but, as I have nothing new to offer on the subject, I must refer the reader to what I have related in a former volume concerning that despised and miserable race.

In every retrospect on the ancient Hindoo government it will be observed, that, while its politic legislator held out to persevering virtue and patient obedience the most alluring rewards, it assumed the most inslexible aspect towards criminals of every description. To temporal punishments the most dreadful, and to corporeal mutilations the most fanguinary, in order to impress his mind with deeper reverential awe, were added all the terrors of the spiritual anathema, tormenting dæmons and the gebenna of gnawing serpents; for that is the true Hindoo hell, and demonstrates the intimate connection of its theological

logical fystem with our own, of which, in its leading features, it is an evident perversion. What is not a little singular in this code, these present punishments and future terrors are often denounced against crimes comparatively trivial, with as much violence as against offences of the deepest enormity, as will hereafter be fufficiently manifest; in short, the stern dogmas inculcated by it, sanctioned by the combined authorities of heaven and earth, allowed of no relaxation in the severe discipline which it enjoined whether in moral or civil concerns. It was the awful manifesto of the deity; and, both in its sublimest and least important injunctions, the strictest obedience was alike indispensable. "Punishment," says the Hindoo code, " is the magistrate; punishment is the inspirer of terror; punishment is the nourisher of the subjects; punishment is the defender from calamity; punishment is the guardian of those that sleep; punishment, with a black aspect and a red eye, terrifies the guilty."* Confonant to this maxim, the laws of Draco himself were not more deeply en-

[#] Halhed's Code of Gentoo Laws, cap. 21. &ct. 8.

graved in blood than many of the precepts in this tremendous code. These sanguinary maxims it is impossible to ascribe to Menu: what was remembered from that legislator was, we may conclude, only feverely just, but not cruel: we may reasonably refer to him all that is mild and humane in these Institutes, and some necessary precepts of a more rigorous nature; but, as his progeny degenerated, as the people gradually became more corrupt, the princes more defpotic, and the Brahmins more powerful, it was thought necessary to add new and more terrible laws to those which, in the primitive ages, were deemed fufficient to control the disturbers of the public tranquillity. The hypothesis on which this work and that of Mr. Bryant have constantly proceeded, and both of which record the invasion of India in early periods, and the conquest of the virtuous Shemites by the daring and nefarious Cuthite race, will fufficiently point out to the attentive reader the period of this great national change, and the fatal cause of this general depravity.

It should still be remembered, however, that many of the laws inculcated in the Brahmin code are in a high degree liberal and humane.

humane, founded on the practice and decifions of the earliest ages, when, as yet, no fystem of jurisprudence was committed to writing. Many also of the civil institutions. enumerated in it, go back to the days of Noah, though most have been dreadfully perverted; for, I must repeat in this place what has been frequently afferted in this work, and, indeed, forms in some degree the basis of it, that in the ancient world there were certain grand and primitive customs diffused univerfally over all nations; customs founded on the general confent and original creed of mankind, confirmed by immemorial laws and fanctified by pious traditions; customs which probably flourished in their full vigour and purity, under the domestic patriarchal roof of Noah, before the dispersion, which passed into all nations with the first colonists, and were observed in their vigour and purity, or debased and degraded in every country, according to their rectitude in adhering to, or depravation in receding from, the inflitutions of their primæval ancestors. For the aspect of unrelenting feverity assumed in general by legislative codes of very high antiquity, it may be urged as some degree of palliation,

that the crimes, against the commission of which they were principally meant to guard, are not fuch as generally spring up among mankind in an affociated and civilized state: but fuch dreadful offences as men scarcely emerged from barbarism, and under the influence of all the unbridled passions which agitate to tempest the human bosom, may be supposed capable of perpetrating: incest of the deepest dye, plunder and robbery, midnight murder, and the violation of virgin beauty. Against these crimes, so fatal to infant states, it was necessary to raise the strongest rampart which the terror of legal authority could erect against them, and the extreme necessity of the occasion will too often justify their being written in blood

In Eastern climes, where despotism has ever reigned in its meridian terror, in order to impress the deeper awe and respect upon the crowd that daily thronged around the tribunal, the hall of justice was anciently surrounded with the ministers of vengeance, who generally inslicted, in the presence of the monarch, the sentence to which the culprit was doomed. The envenomed serpent that was to shing him to death, the enraged elephant that Vol. VII. Gg was

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was to trample him beneath his feet, the dreadful instruments that were to rend open his bowels, to tear his lacerated eve from the focket, to impale alive, or faw the shuddering wretch in funder, were constantly at hand to perform their destined office. The audience-chamber, with the fame view, was decorated with the utmost cost and magnificence, and the East was rifled of its jewels to adoin it. Whatever little credit may in general be due to Philostratus, his description of the splendid palace and regal pomp of Musicanus too nearly resembles the accounts, given us by our own countrymen, of the magnificence which at present distinguishes those more powerful rajahs, who still retain a portion of their ancient hereditary rights and domain, to admit of doubt, especially in those times when, as yet, the hoarded wealth of India had not been pillaged by the avarice of successive Mahommedan plunderers: the artificial vines of gold adorned with birds of various colours in jewellery, and thick fet with precious stones, emeralds, and rubies, hanging in clusters, to resemble grapes in their different stages towards maturity; the filver censers constantly borne before him, as a god, in which continually burned the richest perfumes of the East; the robe of gold and purple with which he was invested; and the litter of gold, fringed with pearls, on which he was carried in a march or to the chase.* The Mahommedan sovereigns, doubtless in imitation of the splendour in which the ancient Indian monarchs lived, had also their vines of gold, thrones encrusted with diamonds, and ceilings plated with silver, as may be seen in the chapter of the Geographical Differtation, that relates the magnificent decorations of the imperial palaces of Delhi and Agra in the times of the emperors Jehaun and Akber.

In short, whatever could warmly interest the feelings and strongly agitate the passions of men; whatever inflames hope or excites terror; all the engines of a most despotic superstition and of a most refined policy were set at work for the purpose of chaining down, to the prescribed duties of his cast, the mind of the bigotted Hindoo; to enforce undeviating obedience to the law, and secure inviolable respect for the magistrate.

Hence

^{*} Philostratus, lib. iii. cap. 26. Curtius, lib. viii. cap. 9.

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Hence his unaltered, his unalterable, attachment to the national code and the precepts of the Brahmin creed. As it has been in India from the beginning, so will it continue to the end of time and the dissolution of nature: for the daring culprit who tramples on either, heaven has no forgiveness, and earth no place of shelter or repose.

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CHAPTER II.

The Age of the Institutes of Menu, as ascertained by astronomical Computation. reaches back so very near to the Flood, as to justify the Conclusion that they exhibit to us the shattered Remains of the grand PATRI-ARCHAL CODE, but debased, and perverted to political Purposes, by the Brahmins. -Mr. Halhed's GENTOO CODE and the INSTI-TUTES the only genuine Sources of European Information on the Subject of ancient Indian Jurisprudence. — In many Instances, both strongly resemble and illustrate the Leviti-CAL Law. - Some of those Instances adduced, together with numerous Proofs of their being very sanguinary and partial Codes. - Mr. Halheu's being rather a Summary of adjudged Cases, than a complete Digest of Indian Law, is first considered. — A regular ANA-LYSIS is then attempted of the Work of ME-NU through its Twelve grand Divisions; interspersed with such Observations as suggested themselves to the Author in making it.

HAVING taken the preceding general furvey of this ancient and wonderful code of Indian jurisprudence, and of the spirit that breathes throughout it, I shall, in this chapter, after a few introductory observations, proceed to give a fummary analysis of each of the twelve chapters it contains, and notice fuch other striking particulars in it as are more remarkably deferving of attention. In these prefatory observations, I shall have before me both the Institutes as presented to the public by Sir William Jones, and the Hindoo Code of Mr. Halhed, which was compiled by venerable Brahmins as an epitome of that and other ancient law-treatiles now grown in some degree obsolete, or, at least, in less general use.

The Institutes are stated, by the translator, in the elegant preface that introduced them to the European world, to be of a date far anterior to the laws of either Solon or Lycurgus; the first promulgation of them, as a code of laws, he is of opinion was coæval with the establishment of the first monarchies in Egypt or Asia; and, by an ingenious astronomical calculation, strengthened

by the internal evidence of the book itself. he endeavours to prove that the first reduction of them to writing, in their present form. was in the year 1280 before Christ. A very long feries of ages must, indeed, have elapsed before a body of laws fo extensive, fo complicated, fo minute in its decisions upon almost every possible species of offence committed against the peace of society, and abounding with fuch excellent maxims for the wife government of a vast empire, could have been collected together, and the cases in civil, religious, and commercial, concerns. which are enumerated in the course of it. have been determined. We are led gradually back by this statement and these reflections to the earliest post-diluvian centuries, and perceive, amidst a thousand interpolations of artful priefts and interested legislators, certain, though faint, gleams of the patriarchal code that prevailed in the first ages.

A tradition very generally prevailed among the ancient Hebrews, that, after Noah had descended from the ark and offered to God that acceptable sacrifice which preceded the covenant the Almighty condescended

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to make with him, that he would never again inundate the globe, the great patriarch, at the same time, received certain general laws for the regulation of the conduct of the human race at large, till the more particular manifestation of his will from Sinai. These are, in number, seven, and are denominated the precepts of the Noachida.* By the first of these precepts, idolatry, or the adoration of false gods, is forbidden; by the second, blaspheming the name of the Creator; by the third, the shedding of human blood; by the fourth, incestuous and unlawful conjunctions are prohibited; by the fifth, the plunder of another's property; by the fixth, the eating of flesh cut off from the living animal; and, by the feventh, a folemn injunction is given for the institution of judges and magistrates to enforce obedience to the above laws. In these precepts, according to the Hebrew rabbins, are fummed up the great principles of the Law of Nature; which, however, are more justly and concisely stated, in Justinian's celebrated code, to be included in the three following comprehensive maxims;

^{*} Selden de Jure Nat. et Gent. lib. i. cap. ult.

that we should live honestly, molest nobody, and render to every man his due.

In truth, the best rule of human conduct, independent of revelation, is the light of unabused reason, which is very properly considered, by Grotius, as the great original Law of Nature, coæval with the creation of man, formed in that radiant image of his Sovereign Maker; a law, the peculiar growth of no clime, age, nor condition, but operating, with various energy, in every region, and among every people of the habitable globe.

This law, simple, perspicuous, sublime, continued, for a time, to be the ruling guide of man's conduct, till passion, gaining the ascendant, obscured the light of that glorious internal principle, and, precipitating Reason from her throne in the human bosom, usurped the sovereignty over his will and appetites. Still, however, though the light of reason became eclipsed, the Almighty Ruler had originally so formed man as not to leave himself entirely without a witness in the human mind. To the superintending and directing power of reason, he added another internal principle intended to limit the excess of vice and control

the predominant fury of passion. It is that principle to which we all are fo intimately conscious, which determines what is morally right or wrong in human action, and whose judgement is attended with confequent felfapplause or condemnation. This solemn and fecret monitor, occasionally lifting its awful voice, prevented that rapid immersion in guilt, into which his passions, entirely unrestrained, would otherwise have hurried deluded man, and his descent down the stages of vice was flow and gradual. In process of time, however, the criminal affections, from repeated indulgence, becoming more headstrong and ungovernable, the admonitions both of the thinking and the judging power were alike difregarded, and human nature was degraded by the basest enormities. The scene then became totally and dreadfully altered. The ties of kindred, the strongest and most pleasing, were universally spurned; the facred duties of hospitality were neglected; the sword determined all rights; and rapine and violence desolated the whole earth.

In the horrid and convulsed state above described was the ancient world, when it pleased the Deity, by a dreadful exertion of his power, to put a stop to the farther growth of iniquity, and to exemplify his juftice in the destruction of it. To the father of the renovated world he doubtless vouchsafed. as has been hinted, a more peculiar manifestation of his will for the government of its new inhabitants, and probably fome general precepts, like those ascribed to the Noachidæ, were imparted to him. These may in part have formed the basis of the ancient code under confideration, but the numberless puerilities, the endless train of superstitions, some afflictingly painful, and others disgusting in the extreme, the fanciful doctrine of transmigration interwoven with the very fubstance of it, the false philosophy inculcated in it, and the extremely fanguinary punishments fometimes denounced in it, must be reserred to the artful policy of the Brahmins and to defpotic princes who succeeded the first great legislator. The doctrines it contains, are faid to have been orally delivered by Brahma to Menu; a circumstance deserving consideration, as opening a wide and almost boundless field for fraudulent interpolation; at the same time its precepts are fanctioned by the most dreadful anathemas, and extend the horror

of punishment to the most distant scenes of existence.

One of the most remarkable precepts in this code is that so congenial with the Levitical law, that a brother thall marry the widow of the deceased brother, and raise up seed to him; this law, however, is declared to be obsolete in this miserable Cali age. Institutes, p. 363. Another of its ordinances, which also affords a striking resemblance to the code of Moses, doubtless founded on the practice of the primitive ages, and ordained as a memorial of the great atonement, is the ceremony of the scape-borse, which is ordained to be celebrated in a public assembly of all the Hindoo tribes; and the horse, after many mystic rites, like the scape-goat of the Hebrews, and we may add the red beifer of the Egyptians,* is driven with execration into the deferts, and supposed to be loaded with the fins of the exonerated nation.+ There cannot be the least wonder at these and many other striking circumstances of similitude occurring in the two codes, entertained by those who have attentively perused

^{*} Herodotus, lib. ii. cap. 39.

[!] S. Halhed's Gentoo Code, preface, p. 21.

the preceding volumes, and confidered the plan upon which I have constantly endeavoured to explain these resembling traits in the ancient customs and codes of Asia. Indeed Mr. Halhed, in his preface, intimates that the very name of the country is derived from Hind, whom Eastern traditions make the fon of Ham, and confequently the grandson of Noah.* But, whether he were or not, we are certain, from their own records, and from the general worship of Rama prevailing at this day throughout their whole empire, that this grandson of Noah, this mighty chieftain, this conqueror of the degenerated race of rajahs, was the first regular universal monarch of India; and, from the same source, it is natural that a code of laws, fimilar in its great outlines, should proceed. A great portion of the Mosaic code, indeed, was indubitably inspired; but, as indubitably, a considerable part of it was the refult of primitive precepts and customs, which, from immemorial prescription, were already diffused and predominant in the East.

^{*} See Halhed's Gentoo Code, preface, p. 21.

An eye for an eye and a tooth for a tooth appears to have been the rigid maxim of the ancient Hebrews: and it is here affirmed, that, with whatever limb an offence is committed, that limb shall the king amputate, for the prevention of similar crimes. Institutes, p. 232.

The trial by various kinds of water ordeal, which fo repeatedly occurs throughout these codes, as the criterion of guilt and innocence, forcibly reminds us of the fimilar trial ordained, by the Deity himself, for the detection or acquittal of adultery by the bitter waters of jealousy. Numbers, v. 30. The prescribed diet and strict attention enjoined in regard to animals clean and unclean, as well as the purifications of women and of men after contact with a deceased person or any object that imparts defilement, have also a very striking refemblance with those enjoined in the Levitical code. Those in particular that have relation to bodily impurity, from touching a dead body, are enumerated, in almost fimilar words, in the nineteenth of Numbers; a circumstance for which I have already endeavoured to account. Though flavery be allowed, the crime of men-flealing is equally interdicted

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terdicted in the Hindoo and Levitical code. See Deuteronomy, chap. xxiv.

"In short, the whole office," says Mr. Halhed, "as well as the facred pre-eminence of the Brahminical tribe, is almost an exact counterpart of that of the Levitical. The Levites were particularly forbidden wine; fo are the Brahmins. The Levites were more than others enjoined to avoid the contact of all uncleanness; so are the Brahmins. The Levites were to affift the magistrate's judgement in difficult cases; so are the Brahmins. And, in every other respect, the refemblance might well authorize a fuspicion, that they had originally some remote affinity to each other, though conjecture cannot possibly trace the source of the connexion." In answer to this remark, I beg leave to express a hope that I have effectually traced that fource, by a traditional channel, to a primæval patriarchal code.

But, subjoins our author, it is not only to the laws of Moses that this code bears a striking likeness; many other parts of the Holy Scriptures may hence be elucidated or confirmed. To mention only two instances: in the book of Genesis we find Laban excusing

cufing himself, for having substituted Leah in the place of Rachel to Jacob, in these words: It must not be so done in our country, to give the youngest (daughter) before the sirst-born: this happened long before Moses was born. Thus, in the Hindoo code, it is also made criminal for a man to give his younger daughter in marriage before the elder, or for a younger son to marry while his elder brother remains unmarried.

There is a peculiar law also in this code, by which a father is prevented from dispossessing his children of their property in favour of aliens, and by which he is compelled to give them, if they demand it during his lifetime, even though disobedient and rebellious, the distinct portion which falls to the lot of each: this is highly illustrative of the parable of the prodigal fon.

In proof of the unrelenting severity of the Hindoo code, in PENAL CASES, I have put together the sew following examples.

An adultress is condemned to be devoured alive by dogs in the public market-place. Institutes, p. 236. In the next sentence, the adulterer is doomed to be bound on an iron bed, beated rea-bot, and there to be burned to death.

death. Ibid. But, what is not a little remarkable, for the same crime, a Brahmin is only to be punished with ignominious tonsure. P. 237. He, who has committed incest, is doomed to be extended on a red-hot iron bed, or be made to embrace, till he die, the red-bot iron image of a woman. P. 322. Of night-robbers it is ordained, that the hands be first lopped, and that they afterwards be fixed on a sharp stake, i.e. impaled. P. 281. The witness, who gives false evidence. shall be fast bound under water, in the fnaky cords of Varuna, for a hundred years. P. 199 Naked and shorn, tormented with hunger and thirst, and deprived of fight, shall the same man go with a potsheid to beg food at the door of his enemy. P. 201.

For infulting a Brahmin with invectives, an iron style, ten singers long, shall be thrust red-bot down bis mouth: for offering only to instruct him in his profession, boiling oil shall be dropped into his mouth and ears. P. 224. For stealing kine, belonging to priests, the offender shall instantly lose balf of one foot. P. 231. An assaulter of a Brahmin, with intent to kill, shall remain in hell Vol. VII. Hh

for a bundred years: for actually striking him with the like intent, a thousand. As many fmall pellets of dust as the blood of a Brahmin collects on the ground, for fo many thousand years must the shedder of that blood be tormented in hell. P. 336. But, though fuch frequent exemptions occur in respect to the Brahmins, descended from heaven, a portion of the immortal gods, none are made in favour of KINGS; and we cannot but admire the rigid spirit of impartial justice that declares, where a man of inferior birth shall be fined one pana, the king, who ought to be the fountain of honour and equity, for the same offence shall be fined a thoufand. P. 232.

Having had occasion to refer above to Mr. Halhed's Code, which I before observed is rather an abridged than a complete statement of the general jurisprudence of India, compiled, from their most venerated books on the subject, by learned Brahmins assembled, by the invitation of Mr. Hastings, at Benares, in 1773; I shall, in this place, insert a few other remarkable precepts from that book, and close my observations upon it, that our subsequent attention to the Insti-

tutes themselves, the grand original Code of Menu, may not be interrupted.

Several very fanguinary personal inflictions in penal cases occur there also; and, among other fevere precepts, it is ordained that, if a man be guilty of gross fraud in trade, the magistrate shall crush his hand, nose, and teeth: if he repeat that fraud, the magistrate shall cut him into pieces with a razor. P. 245, quarto edition. Women, murdering their husbands or children, shall have their ears, nose, hands, and lips, cut off, and afterwards be exposed, if not pregnant, to be killed by cows: if they attempt to do it by poison, the punishment decreed is to have a large stone fastened round their neck, and themselves thrown into the river. P. 206. Theft of goods is punished with, in the first instance, cutting off the hands; in the second, with crucifixion. P. 248. For stealing a woman, the criminal shall perish extended on a plate of red-hot iron. Ibid. For stealing an elephant, a horse, camel, or cow, one hand and one foot of the criminal shall be amputated. P. 249. Even the Brahmin that steals is, with great feverity, punished corporally or banished, Hh 2 but

but never put to death; his hair may be cut off, his eyes torn out, and, what is rather a curious kind of punishment, resembling that anciently inflicted by Sefostris on cowards, his forehead is to be marked, by means of a red-hot iron, with the pudendum muliebre. P. 245. According to this code, adultery, in the male, is punished by total castration, and the offender, it is added, shall afterwards be led naked round the city, mounted on an ass. P. 271. Adulterers, whose crime admits of extenuation, as when deluded by the artifices of abandoned women, are branded in the forehead with the pudendum muliebre. Ibid. Unlawful games are punished with a fine and corporal punishment, at the will of the magistrate: fraudulence at play with the loss of two of the fingers. P. 28q.

Destroyers of fruit-trees, or trees of sacred use, and removing land-marks, are must with very high sines. P. 291. Of all domestic merchandize the king has a tenth for his tribute; of foreign merchandize a twentieth. P. 292. The inferior mechanic, labouring at his daily employ, shall suffer no deduction from his profit; and no tax shall be paid for

for articles used in the service of the temple. P. 203. In the article of diet, onions, garlic. and wine, are absolutely forbidden on pain of banishment. P. 205. Persons who have no children, by applying to the magiftrate, may adopt fons, and they inherit as legal children. P. 208. The owners of elephants, oxen, and other animals, are refponfible for all mischiefs done by them, and subjected to high fines for their want of attention to them. By fimilar penalties, the wearied or hungry bullock must not be forced to labour, nor ever worked beyond his strength or out of due season. P. 200. Medicines administered to cows to prevent their calving, malicious attempts to blight trees and plants or prevent their bearing fruit, are taxed with heavy fines. The father must not desert his son, nor the son his father, the brother his brother; nor the friend his friend: without folid proof of guilt: those who offend, in these points, are menaced with fines. The blind, the lame, the deaf, the unfortunate of all descriptions, must be respected in the public streets, and have the way left clear for them. The subject must give way to the magistrate, the pupil

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to the preceptor, and all to the Brahmin, under various penalties and fines. P. 302.

The Gentoo code, after enumerating an endless variety of local injunctions, principally respecting personal duties and purifications, provincial commerce, morals, obedience to superiors, and the regulation of domestic concerns, concludes with a sentence remarkable for the wife, but severe, spirit of equity that distinguishes it, allotting punishments and fines adapted to the degrees of knowledge and improvement supposed to be attained by each, and therefore rendering their offences proportionably heinous or mitigated. It is on the subject of theft, a fubject which fo constantly occurs, that we are unavoidably led to conjecture that the great mass of the Hindoos are less strictly honest in their dealings than they are, by fome travellers, represented. If a Sooder, one of the lowest of the four classes, commits a robbery, he shall pay eight times as much as he stole; if a Bice, he shall pay fixteen times as much; if a Khettri, he shall pay a fine of thirty-two times as much; if he be a common Brahmin, he shall pay fixtyfour times as much; if he be a Brahmin

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of extensive knowledge, he shall pay one hundred times as much; if he be a Brahmin of the highest class, he shall be fined one hundred and twenty times as much. Final page. If the same liberal cast of sentiment ran through every page, what a sublime and glorious system of jurisprudence would this code have presented to Europe?

THE LAWS OF MENU,

SON OF BRAHMA.

CHAP. I.

This initial chapter properly begins with an account of the creation of the world, and a general survey of the objects contained in it.

Menu is represented, in the first verse, as sitting reclined, and wrapped in that divine absorption which, it has been often observed, is a leading tenet in the religion of India. The holy sages approach him with profound reverence; and, inquiring concerning the laws proper to be observed by the sour orders, (a proof that the Indian empire was then H h 4 formed,

formed, and this division of the nation then existing,) he unfolds to them the principles of all things and the manner and progress of creating them. It is here observable that water (not light, as in the Mosaic narration) is first produced; produced, not by a mandate, but by a thought, of the Creator. In that water is placed a productive seed which becomes an egg of gold (the sphere) blazing with a thousand beams. By the same thought, he caused that egg to divide itself in two parts, and, from these two divisions, he framed the heaven above and the earth beneath.

The visible world being thus formed, the immaterial mind is produced, an emanation from the Supreme Soul; and consciousness, or rather conscience, the internal monitor. The creative spirit then proceeded to form the inferior deities and a number of genii exquisitely delicate. It is sublimely added, "He gave being to time, and the divisions of time; to the stars also and the planets." He then produced the four great tribes, or casts of India; the first from his mouth, the second from his arm, the third from his thigh, and the fourth from his foot. It is

afferted that the Hindoos understand these expressions in a literal sense; but it is impossible for a dispassionate European reader to confider them in any other than an allegorical point of view. By the mouth, therefore, Menu must be understood to have meant wisdom; by the arms, strength; by the thigh, commerce; by the foot, agricultural labour and obedience: and the principle inculcated, I conceive, is, that wisdom or piety, (for, both may be fairly shadowed out by the mouth, whence the dictates of the one and the prayers of the other proceed,) strength or fortitude, external commerce, and domestic industry, form the four pillars of a great empire. Hence the four-fold politic division of the Indian nation into casts and professional characters, intended eternally to inculcate, on legislators and princes, that important axiom.

Immediately after, succeeds a detailed account of created objects animal and vegetable, from the elephant to the gnat, from the lord of the forest to the creeper; and, what is singularly remarkable, all these are declared to have internal consciousness, all to be sensible of pleasure and pain, all in a state of transmigration

transmigration in a world ever tending to decay.

The divisions of Hindoo time, divine and human, from the twinkling of an eye to the day of Brahma, or a thousand great ages, are next enumerated, and the four yugs are affirmed to be the allotted period of probation for the human race, or, rather, for countless races of human beings, "breaking like bubbles on the stream of time." Among these, the Brahmin, eldest-born of gods, who loads their altars with incenfe, who feeds them with clarified butter, and whose, in fact, is the wealth of the whole world, ever keeps his elevated rank. To maintain him in holy and voluptuous indolence, the Kattry, or rajah, exposes his life in the front of battle: the merchant covers the ocean with his ships; and the toiling husbandman incessantly tills the burning feil of India. We cannot doubt, after this, which of the Indian casts compiled this volume from the remembered Institutes of Menu.

CHAP. II.

The second chapter is entirely devoted to the important concern of the education of the the young Brahmin, and the confideration of the duties incumbent on the facerdotal class, or first order.

Near the commencement it is declared that the great body of the ecclefiastical and civil laws of India is derived from two original fources, the sputt, or what was heard from above, meaning revelation; and the SMRITI, or what was remembered from the beginning, meaning immemorial usage. The man is declared anathematized who treats with contempt those two fountains of all genuine jurisprudence; for, in truth, were those dogmas to be rejected, the Brahmin dominion over the confciences and fortunes of the Indians must inevitably fall to the ground. The confecrated land, or paradife of India, is next, with geographical precision, ascertained, and the SMRITI laws are declared to have been the immemorial usage of that favoured region, when man flourished in happiness and innocence.

The manner of educating the young Brahmin is now prescribed from his birth, and the minute attention paid, in every stage of that education, to cleanliness of person and vestment, evinces that the sacerdotal order

of India, like those of ancient Egypt, confider the cultivation of bealth as no inconfiderable part of religion. They seem, also, to have laid it down as a maxim, that a pure soul cannot exist in an impure body, and that every new birth, in the slessly tabernacle, conveys something more than a corporeal pollution. It is scarcely possible, consistently with decency, to detail their ideas on this delicate subject; yet must they not be passed over wholly unnoticed.

Thus, oblations to fire, that purifies all things, and holy rites on the birth of the child, expunge the feminal and uterine taints. Before the fection of the navel-string, the infant Brahmin must be made to taste honey and clarified butter from a golden spoon. He must be named on the tenth or twelfth day, at a lucky hour, and under the influence of a benign star; a proof that they cultivated astrology at this early period in India. On the fourth month he is to be carried out to see and admire the sun, the secondary god of his future devotion. In the second or third year, after his birth, the ceremony of tonsure must be performed;

this was an old practice of the priests of Mithra, who, in their tonfures, imitated the folar disk. In the eighth year he is invested with the zennar, or facred cord of three threads, in honour of the divine triad of India, Brahma, Veeshnu, and Seeva. He must afterwards put on a mantle formed of the hide of a black antelope; he must have a girdle, the zodiacal zone of the Mithriac priests, formed of munia, or cusa, grass; he must have a wand or staff of bilva or palass wood of such a height as to reach his hair, and the staff must be straight, smooth, and without fracture. Thus apparelled, and standing opposite to the fun, he must thrice walk round the fire from left to right, (a ceremony which fully proves the origin of the triple turn, fun-ways, of the Druids,) and then legally perform the ceremony of begging food of his relations. To explain this, I must observe that the Brahmin is always supposed to live by the charity of others, and to be a miserable mendicant in this transfent world of fin and forrow. In another part of this chapter we are informed, that " the subsistence of a student by begging is held equal to fasting

in religious merit." He must eat this elecmosynary food with his face to the east, and, having eaten it, he must thrice wash his mouth completely, and afterwards sprinkle, with water, his eyes, ears, and nostrils. Thus end the ceremonies indispensable to the infant Brahmin: let us attend him, in maturer youth, to his studies and his preceptor.

He must observe the most rigid temperance, and, as he grows up, the most unfullied chastity, even in thought; or all his prayers, and all the instructions of his venerable tutor, will only inflame his guilt. He must attend his preceptor, arrayed in all the enfigns of his order; at the beginning of the lecture perform an ablution; read, or hear read, the Veda with hands devoutly closed; and, after the lecture, he must perform a fecond ablution, clasping, with both hands, the feet of the reverend father. He must, a thousand times in a day if possible, pronounce to himself the mystic word om (the fire of the folar orb). There is a wonderful potency in that word; it purifies, irradiates, and fublimes, the foul; it secures beatitude and gains immortality. He must perform,

perform, for his tutor, the office of a fervant without reward. By his hands the confecrated wood, for the facrificial fire, must be gathered; by his hand the slame kindled; he must carry the water-pots for ablution, the flowers, fresh earth, and cusa-grass, used in the sacred ritual; and, at intervals, intensely read the holy Veda, and implore food around all the district.

Nothing can be conceived more severe than this state of servile pupillage, which continues to the twenty-fifth year; it shews the abject obedience in which the elder Brahmins hold not only the younger of their own order, but all the orders dependent upon them. Many of the stanzas, in this chapter, contain very excellent moral doctrines, though much overstrained. By others we are filled with fentiments of detestation and horror at the fanguinary interdictions contained in them, for the most trivial faults and the most pardonable fallies of youth. At the close of this long vassalage, the Brammassari, when he leaves his preceptor return to his natural father, is subject to a mulct, and must gratify the avarice of the holy Indifferent with the best gifts in his

his power, a piece of land, a present of gold, a jewel, a cow, a horse, or some similar present. The ultimate reward, however, for this patient servitude and voluntary muniscence, is not a little flattering; for, the last stanza declares, that "the twice-born man, who shall thus, without intermission, have passed the time of his studentship, shall ascend after death to the most exalted of regions, and no more again spring to birth in this lower world."

CHAP. III.

In the third chapter are discussed the TIME and DUTIES of marriage.

Having passed through the state of pupillage, according to the rigid rules laid down in the preceding chapter; having obtained his tutor's consent, and received from him a present of the Vedas, the young Brahmin is permitted to espouse a wife of his own tribe, but not within the sixth degree of consanguinity. Some very judicious, and other very curious, rules are laid down for his conduct in the choice of a wife; in particular, he is recommended not to marry any woman with red hair, desormed in her limbs.

limbs, or immoderately talkative, nor into any family that has produced no male children, or that is subject to any hereditary complaint, as phthisis, epilepsy, and elephantiasis. Let him, say the wise Institutes, choose for his wife a girl whose form has no defect, who has an agreeable name, who walks gracefully, like a phenicopteros, or like a young elephant, whose hair and teeth are equally beautiful, and whose body has exquisite softness. A marriage, in any tribe below his own, degrades him, but still it may be contracted; he may legally espouse four wives according to the number of those tribes. There are eight forms of marriage, four are holy and four are impure. They are enumerated, and the latter are to be avoided. because it is declared that a guilty marriage invariably produces a miserable offspring. If a Brahmin marry a girl of the Kattry tribe, she must approach the nuptial fire bearing an arrow in her hand; if one of the Bice tribe, a whip; if one of the Sudra tribe. The must hold the skirt of a mantle; I presume as a mark of her being of the lowest class. The instructions of this pious book are so very Vor. VII. minute [i

minute as to descend to a description of the proper periods, that is, the auspicious nights, for conjugal embraces; and many other circumstances which it would be neither useful nor decent to insert in this epitome.

The Brahmin must be constant, affectionate, and indulge his wife in all the innocent diversions and all the personal ornaments fuitable to his rank and abilities: and the perfection of nuptial felicity is thus fummarily described and forcibly recommended. "In whatever family the hufband is contented with his wife, and the wife with her husband, in that house will fortune be affuredly permanent." Being now become a housekeeper, maxims, appropriate to his new station, are inculcated; the fuccessive facrifices and ablutions to all the gods and genii respectively; "by day, to the spirits who walk in light; and, by night, to those who walk in darkness." The numerous and varied duties of hospitality, to different guests, according to their rank and consequence, are now laid down and strenuously recommended. They impress the mind with the liveliest idea of the generous

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generous liberality of the benevolent race of ancient Indians. This chapter concludes with a very ample and curious detail of the ceremonies customary at that particular sacrifice which the Indians denominate sradday, or oblation to the manes of their departed ancestors, who are represented as exulting in delicious repasts of rice, honey, and clarified butter, offered up to them by their grateful descendants; and as blessing the pious donors through a thousand generations.

CHAP. IV.

On Economics and private Morals.

The art of prudently managing domestic concerns, and the legal and honourable methods by which a Brahmin may increase a scanty income, are here discussed: his chief business is about the altar, he must constantly attach himself to some consecrated fire, he must duly and devoutly perform the offices of religion, and be particularly attentive to those rites which are performed at the end of the dark and bright fortnight, and at the solftices; another proof how ear-

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ly they knew the folftice and had brought astronomy into the aid of religion. In his person he must, like the priests of Egypt, preserve a scrupulous cleanliness; hair, nails, and beard, must be clipped; his passions subdued, his mantle white, his body pure; carrying in his hand a staff, or wand, an ewer of water, a handful of cusa-grass, or copy of the Veda, with golden rings in his ears. The fame rigid attention to cleanliness must be kept up in the minutest article of life and conduct: in his conjugal commerce, in the necessary evacuations, &c. (all described in very disgusting detail,) a more than Mahommedan severity must be observed. His manners must always partake of the gravity of his profession; he must neither dance, nor sing, nor play on musical instruments, except in religious rites; he must neither play at dice nor affociate with any who do, or gain their livelihood by dishonourable and low means: the company even of a king, not a rajah by birth, is an eternal difgrace to the high-born Brahmin.

Having risen with the twilight, having performed his ablutions, repeated the Gaya-

tri, and lighted the facred fire, he must intenfely, throughout the day, study the Vedas, and regulate his conduct by its facred rules. Let him delight in truth, in justice, in benevolence; let him not give way to either arrogance or pufillanimity; neither be the votary of pleasure, nor the slave of gloom and despair. Let him walk in the path of good men, the path in which his forefathers delighted to walk. Let him honour his parents, respect his guest, be tender to his offspring, gentle to his fervants. Let him avoid covetousness, and not be greedy of prefents, of which the Brahmins receive many. Let him be scrupulously delicate in regard to what food he eats and with whom he eats it: the most dreadful violation of his character is inseparable from eating with one of an inferior cast. Towards the conclusion of this chapter there occur some very sublime passages concerning the foul, and the radiant rewards that will, in a future state, be the consequence of a life thus passed in unfullied piety, and the final verse is as follows: " a priest who lives always by these rules, and Ii 3 who

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who is freed from the bondage of fin, shall be absorbed in the divine effence."

CHAP. V.

On Diet, Purification, and Women.

The precepts inculcated in this chapter are almost entirely of a local nature, and an enumeration of them, even in the most abridged way, would be little interesting or instructive to an European. Under the first article, the banquet of blood, the food of animals, is positively forbidden, except of those offered in facrifice; for it is expressly declared that " as many hairs as grow on the beaft, so many fimilar deaths shall the flayer of that beast, for his own satisfaction in this world, endure in the next from birth to birth." Under the fecond head are discussed the necessary purifications appointed for those who have been defiled by the touch of a dead body, for those who have had illicit concern with women; for women themfelves, after the puerperal and menstrual taint; for accidental contact with a Chandalab, or outcast: many of these are appointed to be by the fire, but far more by the water, ordeal.

deal, and the duration generally from three to ten days. The third article exhibits to us a striking proof in how contemptible a light the amiable part of our species is holden by the fastidious, frozen, self-admiring Brahmin, who would bind the loveliest beauty in eternal chains, and subject the most tender affection to neglect and cruel dependence. By the Indian, in this respect abominable and unfocial. Code, a woman through every stage of life must be kept in perfect vassalage; in childhood, to her father; in youth, to her husband; at his decease, to her sons and his kinsmen. The stern dogma decides that " a woman must never seek independence." Other circumstances, equally degrading to the fex, are added, by the Brabmins, we must suppose; for precepts like these can never have formed a part of the patriarchal code, fince the Hebrew patriarchs well interpreted that passage in Genesis relating to the creation of woman, that by her being taken out of the fide of Adam, and not from any superior or inferior part of his body, was denoted her equality with her husband.

CHAP. VI.

The fixth chapter is entirely on DEVOTION, and discusses the duties incumbent on the third and fourth orders or degrees of Brahmin candidates for final beatitude.

As we have already, in the fifth volume of this work, rather extensively detailed the history of the four ASHERAM, or degrees of Brahmin probation in this transitory world, under the distinct titles of BRAHMASSARI. GERISHTH, BANPERISTH, and SANIASSI: and, as this chapter is only a confirmation of the actual existence of the painful trials described in it. little more remains for us than to mark out fuch striking particulars as could not then be noticed from the want of this authentic document. We have traced the young Brahmin through his years of pupillage, and have feen him pious, content, and happy, in the conjugal state. Severer precepts impend over his more advanced life. When his muscles become flaccid and his hair gray, and when he beholds the " child of his child," he must check the farther ebullition of passion, and seek the feclution feclution of the forest. His wealth, his idols, his household utenfils, he must resign to his children: clothed only in the hide of an antelope, or a vesture of woven bark. he must retire to his hermitage in the high embowering woods, and his food must be confined to bare roots and water. He must fast more rigidly than ever; he must undeviatingly perform all the appointed facrifices to the gods of India superior and inferior, to the constellations, and the manes of his ancestors; and greatly multiply them at the awful period of the conjunction and apposition of the moon, and at the winter and fummer folftices. He must alternately expose himself to the piercing extremes of intense cold and raging heat, or, to use the dreadful words of the Institutes themselves. " let him, in the bot feafon, fit exposed to five fires, four blazing around him with the fun above: in the rains, let him stand uncovered, without even a mantle, where the clouds pour down the heaviest showers: in the cold feafon, let him wear humid vesture; and increase, by degrees rising above each other in harshness, the austerity of his devotion, till he perfectly dries up his his bodily frame." In this short sentence what a catalogue of varied and increasing sufferings; what an inventive genius for torture have these world-renouncing Brahmins! But, farther, if he possess any incurable disease, let him neither aim at palliation or cure; let him bear in silence the most exquisite pains, and bless the gangrene that, like the unsatiated vulture, preys upon his vitals. If, by these and other excruciating modes, he cannot "shuffle off" the incarcerating body, let him seek eternal glory in this world and the next by finally becoming a Saniassi.

Bearing in one hand a water-pot, in the other a staff, his eye continually fixed on the earth, his lips closed in inviolable silence, the human organs totally subdued and utterly insensible to whatever passes around him, he must be totally absorbed in prosound reflection on the holy Vedas, on the transporting joys that animate the just in heaven, on the inestable torments that await the disobedient in hell. If any pious compassionating Brahmin bring him such homely food as a Saniassi is allowed, in the shade and obscurity of the night he may

eat it; or if he fill his pot with the water of the pure rivulet, in the same nocturnal feason he may drink it; but he must himfelf make no exertion, nor feel any folicitude for existence upon this contaminated orb. Happily, for these infatuated devotees. there are always enough of the younger fludents of the holy tribe to attend them in their retirement; who think that, by ministering to their necessities, they catch a part of their fanctity, and are entitled to a portion of their fublime rewards; for, by long continuing these excruciating severities, many of the former are by degrees plunged into a state of stupid insensibility, and become perfect ideots; and the faculties of all are impaired almost to derangement. The corporeal organs, grown callous to every external impression, are divested of all their functions, and the Saniassi appears, to weakfighted mortals, as an immoveable statue of wood or stone; but the entranced foul is in the highest heaven with the Eternal Mind from which it emaned, and waits only for the total destruction of its unworthy comrade to obtain complete and unbounded absorption in the Deity.

Near the conclusion of this chapter occurs the following whimsical, but striking, description of the bouse of clay tenanted by frail mortals.

"A mansion with bones for its rafters and beams; with nerves and tendons for cords; with muscles and blood for mortar; with skin for its outward covering; filled with no persume, but loaded with saces and u—e.

"A mansion infested by age and by sorrow, the seat of malady, harassed with pains, haunted with the quality of darkness, and incapable of standing long; such a mansion of the vital soul let its occupier always cheerfully quit."

Apparently replete with magnanimity and fortitude as are many of the precepts contained in this chapter, yet it is to be feared they have their foundation in the arrogant conceits of the Brahmins, that lead them to look down with contempt on the works of God and the fellow-creatures with whom they sojourn in this terrestrial sphere, a kind of blind and desperate enthusiasm, rather than a true religious fortitude of mind. Indeed, if there existed no other objection to their

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celebrated doctrine of the Metempsychosis, it is a sufficient one that its dogmas have a constant tendency to recommend the most determined suicide, and to wrest from the hands of the Almighty that supreme power, which he alone by right possesses, of disposing of the lives of the creatures which he has made.

CHAP. VII.

This chapter relates to the mode of rightly administering the government, and the duties of the military, or rajah, class, who are by law appointed to that office.

In the fix preceding chapters the duties, functions, and privileges, of the Brahmins, or first class, have been very amply discussed; the duties of kings, who form the second, are now to be unfolded. Kings, were created, say the Institutes, by the Ruler of the universe to maintain order and enforce law: without a king the world would quake on, all sides through fear from the prevalence of crimes: the Brahmin code, therefore, decidedly supports the doctrine of the divine origin of kings. The kingly character is spoken of in the most adulatory terms;

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he is represented as the fun that illumines the world; the perfect essence of maiesty. by whose favour Abundance rifes on her lotos, in whose valour dwells Conquest, in whose anger Death. It is then sublimely added, that, for his use, " Brahma formed, in the beginning of time, the genius of punishment, with a body of pure light, even abstract criminal justice, the protector of all created beings." It is declared that a king, as he is the fource of justice, must himself be a bright and exemplary pattern of every He must rise at early dawn, he must diligently and humbly attend to the lectures of the Brahmins, the hereditary counsellors of the throne, in all the sciences connected with his high office; he must keep his organs in complete subjection, for a king devoted to pleasure is devoted to ruin: he must be neither addicted to gaming, nor intoxication, nor effeminate relaxations, as music, dancing, or singing; the insidious tale-bearer, the malicious detractor, he must avoid as death. He must see with his own eyes, he must hear with his own ears, weigh all matters dispassionately, and inviolably regulate all his decisions by the rules laid

laid down in the Vedas. He must select seven or eight ministers, of noble descent, brave, and skilled in the science of jurisprudence. With these he must daily discuss the important business of peace, of war, and alliance with foreign states, of his forces, of his revenues: with these he must confult on the appointment of proper subordinate officers, civil and military, throughout his whole kingdom; and, with respect to other princes, he must ever be particularly circumspect whom he sends as his ambassador; the august representative, the facred image, of himself! He must erect a lofty fortress, amidst inaccessible mountains, to which he may retire in case of necessity and in time of war; around it, many leagues, must stretch either a vast desert or impenetrable forests. In time of peace he must reside in his capital and among his subjects, whom he must treat as the children of his affection. Remembering his high birth and function, never to recede in battle, to protect the people, and honour the priests, is the summary character here given of a good king. In the subsequent pages the duty and conduct of the

the inferior rajah and the common soldier are displayed in terms that evince a confummate knowledge of the art of war as anciently carried on in India. The rajah, it is declared, must be of a liberal and elevated mind, of morals uncorrupted, in combat invincible. With respect to the treatment of a vanquished or a captured enemy, and the division of the spoil, there are many precepts highly honourable and generous.

From his duty in the field, the Indian sovereign is again traced back to his tribunal, and the arrangement of the domestic affairs of the empire. When not engaged in taking the exercise necessary to health, or at his meals, or in moderate enjoyment of the pleasures of the Haram, he must still be found on that tribunal, hearing causes and redressing grievances from dawn to the close of day. Seated conspicuously in the hall of justice, he must make no invidious distinctions: the addresses of the meanest of his subjects must be equally attended to with those of the highest. On one side fiercely blazes the sword of justice; on the other mildly gleam the fymbols of benignity

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nity and mercy. Then follows a feries of rules for regulating the commerce of his immense dominions: the stipulated sums to be paid the sovereign, for security and protection, by every class of traders, are minutely laid down, and the regulations must be allowed to be, in every respect, both wise and equitable.

CHAP. VIII.

This long chapter discusses farther the important duties of the kingly office; and enters into various details concerning the private and criminal law of India.

As, in regulating the general concerns of the empire, he is to be affifted by a council of feven or eight ministers of the rajah tribe, so, while he presides in the courts of judicature and is determining legal appeals, his judgement, in difficult cases, is to be directed by some aged Brahmin of great experience and erudition in that branch of science, assisted by three others, forming a select assembly, which is, in consequence, called by the revered name of Brahma; the court of Brahma with four-faces. It is remark-Vol. VII.

able that, towards the commencement. Justice is allegorically represented as Vrisha, or a bull, and he who violates Justice as Vrishata, or the flaver of the bull; which, as these Institutes are said to be the oldest promulgation of law in the world, next to the Mosaic, may have given the idea of the fymbolical bull to Minos, the Cretan legislator and supposed son of Jove; and possibly, as Sir William Jones intimates, from Menu, fon of Brahma, may be derived the very name of that famous lawgiver. At least it must be considered as a very singular circumstance of fimilitude that of the Indian Dhermaraja, or king of justice, the fymbol should also be a white hull; nor, in this retrospective view of the mythology of ancient kingdoms, will the refembling name of the Egyptian legislator Mnevis, and his companion Apis, be wholly forgotten. The decisions that now follow are vastly numerous and varied, and, if minutely detailed, would be very uninteresting to the greater part of my readers, because they have, in general, an immediate allusion to the local customs, and the peculiar manners, and fuperstitious prejudices, of India. The legal fludent. student, and persons resident in India, will probably not rest content with any analysis, much less with the subsequent one, of necessity very summary, but consult the book itself, which, by its republication in Europe, is now made sufficiently public.

The laws concerning debtor and creditor are first distinctly laid down, and the rate of interest, upon different kinds of property pledged, specified; that interest is always to be in proportion to the hazard run, and to increase or decrease, according to the high or inferior class of the person borrowing. One and a quarter in the hundred, per month, was the interest allowed by Vasishta, and is the standard regulation; but, in some very perilous cases, even five in the bundred, per month, is permitted. The common average interest of money at Rome, in its meridian glory, was twelve per cent. per annum, which does not very widely differ from the Indian.

In the next place, the characters of witnesses, proper to be admitted to give evidence, come under examination: that evidence must be solemnly given before some sacred image, a symbol of the Divinity, whose presence in that image is supposed to strike into

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his foul a holy awe: the most dreadful denunciations are throughout uttered against those whose evidence is not founded in truth. The priest is permitted to swear by his facred character alone; the foldier by his horse, his elephant, or his arms; the merchant by his gold or other articles of traffic: one of the fervile, or fourth, class by imprécating on his head, if he speak falsely, all possible crimes and their punishment. On great occasions criminals are to be tried by fire and by water; and of him whom that fire burns not, or who finks not in that water, the veracity must be considered as perfect. A variety of very severe ordinances in the criminal jurisprudence of India has been already noticed; and fome, still more fanguinary, may be found in the course of this chapter. In a country where agriculture and the preservation of kine are an important concern, the most rigid laws concerning trespasses, the removal of land-marks, and the maining of cattle, are indispensable, and they are here very strictly and copiously laid down. The various species of defamation and personal assault are then respectively considered; the first is punished by slitting the tongue,

tongue, the latter according to the degree of injury received, but generally by maining or amputating the limb that gave the offence, besides the payment of all expenses attending the cure of the mutilated person. Theft is the next subject considered. The king himfelf is first cautioned, by dreadful menaces, not to fet the example by plundering his subjects. The punishments principally ordained, in this case, are imprisonment, confinement in fetters, corporal punishment, and heavy fines at the difcretion of the judge. For stealing men and women, however, the punishment is death. Death also with horrible tortures awaits the foul adulterer. In addition to the enormous inherent turpitude of the crime, a political reason is here alleged for the severity of the Indian code against this offence; it breaks down the eternal bulwark of the laws of Brahma, and causes a mixture of the classes of In this respect, resembling our own facred Scriptures, it extends the guilt of adultery to mental inclination, to presents, and to licentious conversation with the wife of another.

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The freight of goods, and the exact prices to be paid as toll at ferries and in the guarded passages of mountains, together with the due regulations for weights and measures, next occupy the attention of the Indian legislator; a vigorous commerce is recommended to be kept up, by the ruling fovereign, as the firm basis of national wealth and greatness: the horrid traffic in human flesh is sanctioned, and the everlasting servitude of the Sudra tribe is rivetted upon that unfortunate cast by the laws of destiny, since the Sudra was born a flave, and, when even emancipated by his indulgent master, a slave he must still continue: " for, of a flate which is natural to bim, by whom can be be divested?" Thus inconfistent, thus incongruous, is the Hindoo code, which, while it anathematizes thieves, permits the magistrate to share in the plunder, and dooms a confiderable portion of the human race to infurmountable flavery, at the very moment that it strenuously inculcates the sublime dogma of the IMMORTALITY OF MAN.

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CHAP. IX.

This chapter is a continuation of the subject of the former; and so important to the general welfare of the state does the Indian legislature confider connubial felicity. that it has provided a particular feries of laws for fettling the disputes that may arise, in domestic life, between man and wife. Its impartiality, however, is deeply violated by the illiberal reflections again thrown, in the initial paragraphs, on the fairer part of the creation. They are declared utterly unfit to enjoy independence; they must be kept through life under the severest restrictions; and have nothing to do with the text of the Vedas, as if they were an inferior order of beings, and not accountable hereafter for their conduct. It must be owned. however, and lamented, that these degrading fentiments, in regard to the fex, are not peculiar to Hindostan; but have ever been too common over all the despotic kingdoms of the East, where women have immemorially been subjected to the most menial domestic offices, and hardships ill suited

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to the tenderness of the female constitution. The difgusting nature of the subject, added to the indelicacy of many of the precepts here given, induces me rather to refer the reader to the book itself than to dilate upon them. The following energetic fentence, however, can by no means be omitted: " the man. who preserves his wife from vice, preserves his offspring from the suspicion of bastardy, his ancient usages from neglect, his family from disgrace, himself from anguish, and his duty from violation." In this chapter occurs the permission, previously noticed as fo congenial with the Levitical law, Deut. xxv. 5, for the brother to ascend the bed of the deceased brother, if the widow bave no issue, for the purpose of producing such issue. It is to be observed that the permission, in the Hindoo code, is limited to the production of one fon only; ever after both the brother and the widow, who have thus united, must live together like father and daughter by affinity. This law ceased among the Jews at the period of the Babylonish captivity; and, in the Cali age, is forbidden in Hindostan.

To the laws respecting legal union and issue are properly subjoined those concerning inberitance. In these laws, and in a variety of instances, throughout the volume, may clearly be traced the remote origin of those which, in Europe, we call feudal. The elder brother is stated to be in the place of both father and mother to his younger brethren, and they are to look to him as to a parent: in this venerated fituation there can be no wonder at his being appointed to succeed to the greater part of the father's fortune, and to all his best goods and chattels; the remainder is divided, in proportion to feniority, among the other fons. The widow must be supported by the benevolence of her eldest fon. To the daughters, unmarried at the decease of their father, each brother shall give, by way of portion, a fourth part of his own distinct allotment. Eunuchs, persons expelled from their cast, ideots, and those born blind, deaf, or dumb, the impotent, and incurably diseased, are declared incapable of inheriting; but the heir, under severe denunciations of spiritual vengeance, is bound to supply them through life with food

food and raiment to the best of his abilities. Under this head of inheritance will be found some very nice and wise distinctions, worthy the minute attention of the legal student, but into the discussion of which it cannot be expected that I should enter.

The laws against gaming engross another grand division of the Hindoo penal code, and the penalties are extremely fevere, whether it be performed with dice, or with living creatures, that is, by matches between rams and cocks, to which the Indian nation have ever been greatly addicted. A prevailing spirit of gaming is truly stated to be the forerunner of destruction to princes, and the subversion of the empire. fovereign must labour to suppress it, therefore, by every possible means, and punish professed gamester and keeper of a gaming-house as open thieves. High fines and corporal feverities, according to the elevated or inferior class of the offender, are the allotted punishments. To the above enumeration of crimes succeeds, in regular order, the detail of a great variety of offences and laws that could not well be claffed under any of the preceding general heads.

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Iniquitous and ambitious ministers, who, inflamed by the blaze of wealth, prostitute their high stations to the purposes of gain, are to be stripped of their property. The forger of royal edicts is to be put to death. The incestuous violator of the paternal bed; foldiers who intoxicate themselves with arrack, mead, or rum; the facrilegious stealer of the gold of Brahmins; are to be ranked among criminals of the highest degree, and punished accordingly. The person who is guilty of cheating in the public bazar, and he who robs in the secluded forest, receivers of bribes, extorters of money by threats, debasers of metals, fortune-tellers, profesfors of palmestry, and a long train of petty offenders, whose crimes often evade the vigilance of the public functionary, are to be hunted out by means of spies and emissaries once thieves themselves, but reformed, who, by careffes, prefents, and other gratifications, having made their way into their hearts and affections, are to turn public informers, and become the means of dragging them from their haunts to the tribunal of national justice. Those who stand by, neutral and inactive, when they are witneffes

nesses to attacks by robbers, or who supply them with fustenance, are to be considered as equally guilty, and share their punishment. The destroyer of a dam, the violator of a pool or well, the obstructer of a watercourse, the breaker of a foot-bridge, of a public pavement, or palisade, shall all be respectively and highly mulct. The prisons and places of correction are ordained to be placed as near as possible to the public road, that all men may mark the punishment of guilt, and profit by the groans of the suffering. Then follows a farther recapitulation of the character and duties of a great and good king, and the innumerable bleffings that await an empire thus wisely governed. The chapter concludes with laying down a variety of general precepts for the regulation of the two last classes, the commercial and the servile.

Of these the VAISYA (or Bice) is the superior; his proper business is agriculture, commerce, and keeping of cattle. While to them the Lord of all created beings intrusted the herds and flocks that range the mountains and the valleys; to the Brahmin and the

Khettri he gave in charge the whole human race. With the value of all the precious gems and pearls with which India abounds. with the produce also of all foreign regions, with the correct modes of measuring and weighing, with the excellence or defects of all vendible commodities, and the means of breeding cattle with large augmentation, the Vaisya ought to be intimately acquainted, for they are the occupations allotted him by the irrevocable voice of destiny. He must also be conversant in various dialects, must erect warehouses, safe and substantial, for the different articles of commerce; he must be incessantly vigilant, and may even indulge a folicitude for wealth, fo far as that folicitude does not sfint his benevolence to sentient creatures. In respect to the SUDRA, he must be content to ferve; that is his unalterable doom. To serve in the family of a Brahmin is the highest glory of a Sudra, and leads him to certain beatitude. He must. in that humble capacity, in a particular manner, study purity both of body and mind: be mild in speech, and patient of labour; this will fecure him a more eminent class in another transmigration.

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CHAP. X.

On the mixed Classes, and on Men's Duty in Times of public Distress.

The tenth chapter of the code is neither very long nor very important; -the first part has reference to the genealogy of the tribes. and the purity of their blood. In proportion as they marry in the tribes below them, (for, a Brahmin may have a wife from each tribe,) the fons bear the stamp of degradation: if he takes one from the Khettri tribe, he is degraded in the first degree; if from the Vaisya, in the second; and so on. An endless enumeration of instances of this kind follows through all the various classes; their duties are stated and their occupations fixed, fince, in fact, those born of mixed blood belong to no original class, and consequently can have no appointed profession. picturesque description of the miseries of the CHANDALAH, or outcast tribe, succeeds, I presume, in terrorem to the others. is ordained that they exist remote from their fellow-creatures amidst the filth and dirt of the suburbs; their sole wealth must confist confift in dogs and affes: their clothes must be the polluted mantles of the deceafed; their dishes for food, broken pots; their ornaments, rusty iron; their food must be given them in potsheids at a distance, that the giver may not be defiled by the shade of their outcast bodies: their business is to carry out the corples of those who die without kindred; they are the public executioners; and the whole that they can be heir to are the clothes and other wretched property of the flain malefactor. A great many other particulars of this exiled tribe are added by other authors, which I have elsewhere enumerated: and they form, themselves, no weak proof of the unrelenting spirit of the Hindoo code, that could thus doom a vast class of people, a fifth of the nation, to unpitied, perhaps unmerited, wretchedness. An Indian, in his bigotted attachment to the Metempsychosis, would fly to fave the life of a noxious reptile; but, were a. Chandalah falling down a precipice, he would not extend his hand to fave him from perdition.

The second portion of this chapter discusses the question how, in times of great adversity

adversity or distress, the individuals of the four tribes, unable to subsist on their usual occupation, are to obtain a maintenance. A Brahmin, it is determined, unable to live by the duties of his profession, may even take up arms and become a foldier; or he may enter into commerce, and fubfift as a mercantile man, or finally, if abfolutely necessary, by tillage and attending cattle. A great many more restrictions. however, are laid upon the Brahmin, thus occupied, on account of his purer character, than on the foldier, the merchant, and the herdsman, engaged in their native employ; many articles used in war and commerce being absolutely forbidden bim even to touch, which are familiar to them. A Khettri, or military man, in distress, may fublist by all these means in the descending scale; but he must never aspire to the honours of the facerdotal function. The mercantile man and the Sudra may, in the same manner, deviate from their own immediate line of life; but nothing of this kind is to be done without urgent and indispensable necessity, since it immediately breaks in upon the sublime laws of Brahma, instituted at the beginning of time, and violates the eternal order of the Indian casts.

CHAP. XI.

On Penance and Expiation.

A confiderable portion of the rules and precepts laid down in this chapter is a mere repetition of those inculcated in the fixth chapter, or that on DEVOTION: some are very fevere, and others even ludicroust What is new on the subject need only be noticed amidst the terrible display which it exhibits of expiatory tortures. These expiations, however, are not always by corporeal punishment; they may be compounded for by high fines paid to the gods, and their vicegerents the Brahmins. The flaver of a Brahmin undefignedly, if he be of the military tribe, must expose himself to be shot to death by archers, or cast himfelf headlong thrice into a blazing fire. He. who has intentionally drunk inebriating liquor, may expiate his crime by swallowing spirit on flame, or by severely burning his body. For stealing from a Brahmin, he Vol. VII. ասն

must carry to the king, on his shoulder, an iron mace, with which the fovereign must strike him, and, whether he die or not by the blow, the crime is expiated. He, who has accidentally killed a cow, must array himself in her hide, and, thus invested, must, for three months, incessantly attend the herd to which she belongs, and guard them from tigers by night and by day. For killing fnakes and other animals. offerings are to be made to the Brahmins, proportioned to the purity and value of the animals stain. An immense catalogue of imaller offences, or rather of acts only criminal on Indian ground, are enumerated, and the expiations prescribed are, in general, long abstinence from food, swallowing the urine of a cow, prolonged fuppression of the breath, sitting up to the neck in water, or some such singular punishment. For the greater offences, among other inflictions, we find mentioned the ardent penance, as it is rightly enough denominated, boiling milk or oil; hot clarified butter; hot steam, termed paraca; total fasts of dreadful length, twelve days and nights, if Such fasts could ever be performed:

formed: the lunar penance, or chandravana, in which only eight mouthfuls of undressed grain a day are allowed to be eaten, four in the morning and four at night, during a whole month. The wretched penitent. during all this time, must never suffer his wearied lids to close, nor his fainting feet to pause. As he ranges the desert forest, or stems the torrent wave, he must perpetually repeat the holy Vedas, keep all his organs in entire subjection, and ever keep his eve rivetted on the ground. Never was superstition carried to such dreadful extremes. and what is thus sternly ordained has been known to be as rigidly executed, and is, in fact, at this day executing in India.

CHAP. XII.

On Transmigration and final Beatitude.

Such, as have been described, are the duties incumbent on the four great tribes: the ultimate reward, the radiant meed, of toiling virtue is now to be revealed. Making a distinction between the vital spirit and the intellectual soul in man, the code declares man accountable to YAMA, the Hindoo

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Pluto, for the minutest actions of his life and the most hidden movements of his heart. Though the prefent body be confumed to ashes on the funeral pile, yet it affirms that another body, composed of finer nerves and elements, in order to be susceptible of torment, shall certainly be assumed by that soul hereafter. Sensible of these migrations, therefore, fays Menu, let each man continually fix his heart on virtue: the Metempsychosis, therefore, was invented to build up mankind in virtue and piety. The human foul is declared to be invested with three distinct qualities, that of goodness, of passion, and of darkness. Between the former and the two latter of these there is a violent and perpetual struggle, and, as either the one or the other proves victorious, the foul either mounts upwards on eagle pinions to the celestial regions, its native and fublime abode; or is depressed to PATALA, the infernal regions, and becomes the companion of monsters engendered in darkness and fiends that delight in blood. Similar to the passions to which they devoted themselves on this probationary scene, will be the animal into which, in a future birth.

the migrating soul will descend. The form of the surious lion and tiger will receive the soul in which anger and revenge predominate. Unclean and ravenous birds are the allotted mansion of souls polluted with lust and blinded by ambition. Noxious and loathsome reptiles are the abode of those debased by groveling and sordid passions. To some, vegetable and mineral substances are the prison assigned. Of others, sharks, crocodiles, and a variety of aquatic monsters, are the destined repository. The profoundest caverns of the ocean, and the bowels of the highest mountains, swarm with transmigrating existences.

The code afterwards expressly adds, that, in the same precise degree that vital souls, addicted to sensuality, include themselves in forbidden pleasures, shall the acuteness of their senses be raised in their suture bodies, that they may endure analagous pains. For the utterly abandoned, it mentions a place reserved of intense darkness; the sword-leaved forest, and other places of binding sast, and of rending multisarious tortures, await them: they shall be mangled by vultures and ravens; they shall swallow cakes boiling

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liot, alluding to the facred cakes offered to the manes of their ancestors; shall walk over burning fands, and feel the parching slame as if baked in a furnace. They shall experience the alternate extremities of cold and heat, and be surrounded with unutterable horrors. All this they shall endure for innumerable ages, and then again begin their probationary career on earth.

After considering the Metempsychosis on the dark side of the portrait, in the descending scale, let us consider it in the ascending line.

The vital foul devoted to goodness and purity, that has passed the probationary terrestrial period in profound study of the Vedas, in practising severe austerities, in an entire command over the sensual organs; that has avoided all injuries to the brute creation, and has paid due reverence to parents; has insured to itself final beatitude. Some very sublime and noble sentiments of the Deity succeed. A true knowledge of the one supreme God is declared to be the most exalted of sciences, for in that knowledge and in his adoration are comprised all the duties incumbent on man,

of man, wandering in darkness and erroramid the nether spheres, but himself an emanation of the skies, a portion of the sp-PREME Soul, whence are diffused, like sparks from fire, innumerable vital spirits. Then follows this very elevated passage, which I shall give unabridged. "Equally perceiving the Supreme Soul in all beings, and all beings in the Supreme Soul, he sacrifices his own spirit by fixing it on the Spirit of God, and approaches the nature of that Sole Divinity who shines by his own effulgence." What great pity is it that a nation, who could think and write with fuch purity and fublimity on faered subjects, should ever have debased their theology by extravagant allegories; but such is the genius of the Hindoos, and indeed of all the eastern nations, though the most frozen critic would scarcely object to them, were they always as temperate as in the following instance. "As fire, with augmented force, burns up even humid trees, thus he, who well knows the Veda, burns out the taint of fin which has infected his foul." Having thus laboured to burn out the taint of fin from his polluted soul, (but why these strong

Groug and repeated expressions concerning the deep and radical stain with which the -foul is contaminated, if they did not believe in original fin and the fall of man?) having rigidly performed all the prescribed duties of his cast, the soul of the virtuous Indian, in the future scenes of its existence. migrates through and among objects as transcendently beautiful and delightful as the depraved spirit performs its painful peregrinations through creatures deformed and disgusting. Its destined receptacles hereafter are the loveliest and most enchanting objects in the vast limits of nature and in the still more extended fields of fancy. Elyfiums, fuch as poets never yet feigned, and paradifes, fuch as inflamed enthuliasm, in its loftiest flight, never dared to conceive, await the beatified spirit. After bathing for ages in this abyss of joys, that it may be the better prepared for those of infinity, the pure spirit ascends the empyreum, and, in the first stage, joins the order of demigods, wafted in airy cars through the expanse of heaven, while the genii of the zodiaçal signs and lunar mansions hail and embrace their delighted comrade. In the next

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next stage, he mounts to the deities the inferior heaven, and triumphantly join the genii of the immortal Vedas, the regents of stars, not in the path of the sun and moon, i.e. the most remote from human ken, blazing on the extreme verge of creation, the divinities that preside over the great cycles of time, and the superintendants of the vast universe. In the last stage, he exultingly passes the slaming bounds of time and space, and is received into the highest heaven of Brahma, awful with four faces, inshrined in light more refulgent than a thousand suns, eternally to participate of his glory and be absorbed in his essence.

THE END.

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